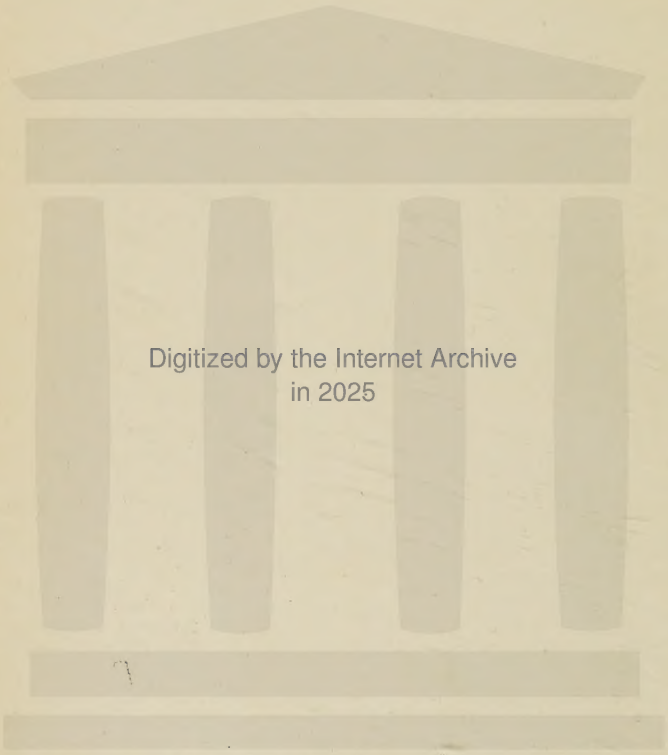


Digitized by the Internet Archive
in 2025

https://archive.org/details/palestine-exploration-quarterly_1929

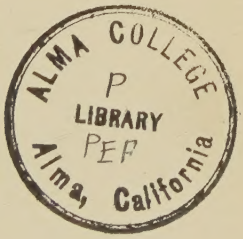
Palestine exploration quarterly

PALESTINE EXPLORATION FUND.

PATRON—THE KING.

Quarterly Statement

FOR 1929.



LONDON:
PUBLISHED AT THE FUND'S OFFICE,
2, HINDE STREET, MANCHESTER SQUARE, W.

15663

1929-
30

HARRISON AND SONS,
PRINTERS IN ORDINARY TO HIS MAJESTY,
ST. MARTINS' LANE.

INDEX TO NAMES OF AUTHORS AND TITLES OF CONTRIBUTIONS.

PAGE

Baldensperger, Philip J.—
The Immovable East 183

British School of Archæology in Jerusalem 37, 95

Chitty, Rev. D. J., and Michael Marcoff—
Notes on Monastic Research in the Judæan Wilderness, 1928-9 .. 167

Cook, S. A., Litt.D.—
Archæological Notes, Notes on Excavations 59, 111
Notices of Publications 118

Crowfoot, J. W., C.B.E., M.A.—
Excavations on Ophel, 1928.. 9
The Church of S. Theodore at Jerash 17
Ophel, 1928 75
Excavations on Ophel, 1928. Preliminary Report 150
Jerash, 1929. Progress Report, 16 March to 4 April 179
(1)Discovery of a Synagogue at Jerash 211

FitzGerald, Gerald, M., M.A.—
A Find of Stone Seats at Nablus 104

Gardiner, Alan H., D.Litt.—
The Sinai Script and Origin of the Alphabet 48

Garrod, Dorothy—
Excavations in the Mugharet el-Wad, near Athlit.. 220

Grant, Prof. Elihu—
The Haverford College Excavations at Ancient Beth Shemesh, 1928 201

Hankin, E. Hanbury, D.Sc.—
The Structure of the Mosaics from the Church of St. Euthymius at Khan el-Ahmar 98

Jones, A. H. M., M.A.—
Notes on Jerash Inscriptions 110

PAGE

Marcoff, Michael and D. J. Chitty—
Notes on Monastic Research in the Judæan Wilderness, 1928-9.. 167

Masterman, Dr. E. W. G.—
Excavations at Tell en-Nasbeh 56
Lecture on the History of the Ophel Hill 138

Myres, Prof. John L., O.B.E., F.B.A.—
British School of Archæology in Jerusalem.. 95
On the structure of the Mosaics from the Church of St. Euthymius at Khan el-Ahmar 98

Parker, H. L.—
Note on " Fiery Serpents " 58

Phythian-Adams, M.A., Rev. W. J., M.A., D.S.O., M.C.—
The Boundary of Ephraim and Manasseh 228

Prip-Möller, J., M.S.—
A Rock-cut Place at Skifta 223

Rowe, Alan—
Palestine Expedition of the Museum of the University of Pennsylvania. Third Report 78

Sulley, Henry—
On Hezekiah's Tunnel 124

LIST OF ILLUSTRATIONS.

		PAGE
Excavations on Ophel:—		
Plate I.	West Side of North Wall of Cistern of Nehemiah in Field 9 .. .. *after*	8
Plate II.	The Old Wall at North-West corner of Field 11 „	8
Plate III.	The Street, looking South in Field 11	8
Plate IV.	The Mosaic.. .. .. „	8
The Church of S. Theodore at Jerash :—		
Plate V.	Plan.. .. .. „	16
Plate VI.	Fig 1.—The Atrium, from the North Angle, looking South, showing North and West Colonnades. Fig. 2.—The Church of S. Theodore, looking towards the North-West Angle of the Nave, with Prostrate Columns .. .. *after*	16
Plate VII.	Fig. 3.—The Baptistery East of Room 7. Fig. 4.—The Church of S. Theodore : The Nave .. *after*	16
Plate VIII.	Fig. 5.—The Fountain Court, looking North from the South-East Angle. Fig. 6.—The Fountain Court, looking East from the Angle between North and West Colonnades .. .. *after*	16
Ophel. 1928 :—		
Plate I.	Rock-cut Room 17 in Field 7 (looking North) Arab Arch behind. (October 21) .. .. *facing*	76
Palestine Expedition of the Museum of the University of Pennsylvania :		
Plate II.	General View of Tell el-Hosn (Beisān, Beth-Shan) (Looking North) .. .. *after*	94
Plate III.	Plan of the Tell Thothmes III Level .. .. „	94
Plate IV.	Mekal Temple. (Looking South-West) .. „	94
Plate V.	Fig. 1.—Mekal Temple (Looking North). Fig. 2.—Mekal Temple. (Looking South) .. .. *after*	94
Plate VI.	Mekal Temple : Southern Part. (Looking West) *after*	94
Plate VII.	Mekal Temple. (Looking South-East) .. „	94
Plate VIII.	Miscellaneous Finds. Thothmes III Level .. „	94
Plate IX.	Mekal Temple. The Great South Corridor. (Looking East) .. .. *after*	94
Plate X.	Mekal Temple. The Mazzebah. (Looking North) *after*	94
Plate XI.	Mekal Temple. The Great Stepped Altar. (Looking North-West) .. .. *after*	94
Plate XII.	Fig. 1.—Baetyl. Fig. 2.—Cult-Object. Thothmes III Level .. .. *after*	94
Plate XIII.	Mekal Temple. Room behind the Stepped Altar, with "Seats." (Looking North) .. .. *after*	94
Plate XIV.	Panel of Lions and Dogs .. .. .. „	94
Plate XV.	Fig. 1.—Ashtoreth Figure. Fig. 2.—Scimitar. Thothmes III Level .. .. .. *after*	94
Plate XVI.	Figs. 1 and 2.—Egyptian Scarabs. Figs. 3 and 4.—Syro-Hittite Cylinders. Thothmes III. Level *after*	94

PAGE

The Structure of the Mosaics from the Church of St. Euthymius at Khan el-Ahmar :—
Diagrams to Illustrate Construction of Mosaic Designs .. 102, 103

A Find of Stone Seats at Nablus :—
Plate XVII. Fig. 1.—Stone Seats. (Looking South). Fig. 2.—Stone Seats and Pavement Slabs removed from the Excavation. Fig. 3.—Stone Seat No. 16. Fig. 4.—Stone Seats Nos. 17 and 18 .. *facing* 108

Notes on Jewish Inscriptions :—
Plate XVIII. Greek Inscription from Jerash.. .. .. .. „ 110

Ophel, 1928 :—
Diagram to show Position of Early Buildings .. .. „ 150
Drawing of South Face of East End of North Wall of Cistern „ 161
Plate I. View of South-East Corner of the Southern Gate Tower .. .. *after* 166
Plate II. View of Long Wall .. .. „ 166
Plate III. View of Longest Section of the Long Wall .. „ 166
Plate IV. View of East Section North Wall in Cistern .. „ 166
Plate V. View of Cistern before Plaster had been stripped from the walls .. .. *after* 166
Plate VI. Cistern, Looking East .. .. „ 166

Monastic Research in the Judean Wilderness :—
Plate I. Fig. 1.—El 'Aleiliyât from South Side of W.-Suweinît *after* 178
Plate II. Fig. 2.—W.-Suweinît seen from the West. Fig. 3.—Syriac Inscription .. .. *after* 178
Plate III. Fig. 4.—Stairs of Baptistery, showing Syriac Inscription and Crosses of Older Type. Fig. 5.—Syriac Inscription .. .. *after* 178
Plate IV. Fig. 6.—Kasr. Umm Leimun. Fig. 7.—Kasr el-'Abd .. .. *after* 178

Beth Shemesh :—
Plate I. Plan of Excavations up to July 27, 1912 .. *facing* 201
Plates II. and III. Pottery Types .. .. .. *after* 210

Discovery of a Synagogue at Jerash :—
Plate I. Fig. 1.—View of the Church built above a Synagogue *after* 219
Plate II. Fig. 2.—Synagogue Level under the Church. Fig. 6.—Pedestals of Columns on original Synagogue level *after* 219
Plate III. Fig. 3.—Mosaics representing the Deluge. Fig. 5.—Mosaics .. .. *after* 219
Plate IV. Fig. 4.—Mosaics of the Deluge Story .. „ 219
Plate V. Fig. 7.—Jewish Inscription .. .. .. „ 219

Rock-cut Place at Skifta :—
Plate I. Diagram .. .. *facing* 223
Plate II. Figs. 1-4.—Views of the Rock-cut Place .. *after* 227

NOTE.—April issue, Plate VII. *after* p. 94, *for* Looking South-West, *read* Looking South-East.

GENERAL INDEX.

Abl, mound of, 60.
el-Ahmar, Khan, monastery at, 41 ; mosaics, 98.
Ai, walls of, 2.
Ain Shems. *See* Beth-Shemesh.
el-'Aleiliyat, monastic cells at, 167.
Alphabet, the, and the Sinai script, 48.
Altar, stepped, discovered at Beth-Shan, 83 ; at Skifta, 223.
Annual for 1927, publication of, 126.
Annual General Meeting, 125, 134.

Baalbek, traces of a new temple, 116.
Balata, excavations at, 2, 118.
Banias, the grotto at, 59.
Beisan. *See* Beth-Shan.
Beit Mirsim, excavations at, 2, 62, 111, 117.
Berueh, Tell, 60, 68.
Beth-Alpha Synagogue, 115, 126.
Beth Nimrah, identification of, 120.
Beth-Pelet, *See* Far'a, Tell.
Beth-Shan, excavations at, 66, 78, 117, 119.
Beth-Shemesh, discoveries at, 62, 117, 211.
Books, &c., received, 5, 6, 72, 130,197.
Books required, 8, 73, 132, 199.
Books reviewed, 118.
British School of Archæology in in Jerusalem. Eighth Annual General Meeting, 37 ; Report for 1927-8, 43 ; work of the season 1928-9, 95 ; and the P.E.F., 135.
Byzantine mosaic and inscription at Ophel, 15.

Chinnereth, identification of, 120.
Crowfoot, Mr., reports on excavations at Ophel, 9, 75, 150 ; and Jerash, 17, 179.

Deluge, new light on, 67 ; pictures of, in mosaic, 215.
Dogs, the, in a Beisan panel, 87.
Dor, identification of, 61, 68.
Duncan, Rev. Garrow, lectures by, 1.

Ephraim and Manasseh, boundary of, 228.
Errata, 193.

Far'a, Tell, excavations at, 114, 118.
"Fiery serpents," 58.

Garstang, Prof. John, excavations, 3, 67.
Geometrical structure of certain mosaics, 98.
Gerar. *See* Jemmeh.
Gerisha, Tell, excavations at, 3. *See* Jerisheh.
Gibeon, Identification of, 121.

Hazor, antiquities at, 3, 59.
Hezekiah's tunnel, &c., 124, 145.
Horses in the east, 183.

Inscriptions—
  Aramaic, 123.
  Assyrian, 122.
  Egyptian, 120, 121.
  Greek, 16, 105-108, 110, 121.
  Hebrew, 113, 123, 128, 218.
  Syriac, 169, 178n

Jemmeh, Tell (Gerar), 113.
Jerash, church of St. Theodore, 17, 179 ; history of, 18 ; excavations, 69, 179 ; Greek inscriptions at, 110 ; synagogue at, 211, 215.
Jericho, proposed excavation of, 67.
Jerisheh, Tell, excavations at, 114.
Jerusalem, mud-storm at, 68 ; named in 21st cent. text, 121 ; Hezekiah's tunnel, 124 ; inscribed stones, 128. *See* Ophel.

el-Kadi, Tell, 59.
Kasr Umm Leimun, 174.
el-Kedah, Camp at, 3.
Kirjath-Sepher. *See* Beit Mirsim.
Kurn Hattin, 61.

Laura, the new, 171.

Lion and dog panels from Beth-Shan, 78, 87, 117, 120.
Lund, Congress of History of Religions at, 194.

Madon, identification of, 61.
Manasseh, boundary of, 228.
Mar Saba, 171, 176.
Marston, Sir Charles, expeditions organised, &c., 3, 9, 67.
Megiddo, excavations, 60, 117, 119.
Mekal, god of Beth-Shan, 79.
Merom, site of, 60.
Mizpah, *See* en-Nasbeh.
el-Moghara, wady, prehistoric remains, 115. *See* Mugharet.
Monastic researches in the Judæan wilderness, 167.
Mosaics at Khan el-Akmar, 98; at Jerash, 215.
Mud-storm at Jerusalem, 68.
Mugharet el-Wad, excavations at, 220, *cf.* 115.

Nablus, stone seats at, 104.
en-Nasbeh, Tell, excavations at, 56, 61, 193.
Notes and News :—
Excavations at Ophel, 1, 65, 125; Lectures by the Rev. Garrow Duncan, 1; Work at Shechem, Tell Beit Mirsim, 2; Sir Charles Marston's expedition, 3; Tell Gerisha, 3; special donations for Ophel, 5, 71, 130, 196; local associations, 65; Mr. Rowe on Beth-Shan, 66; light on the Deluge, 67; letter from Mr. Phythian-Adams, 67; storm of mud at Jerusalem, 68; Annual General Meeting, 125; publication of the fifth Annual, 126; Synagogue of Beth Alpha, 126; discovery near the Haram, 128; presentation by Miss Finn, 128; the death of Mr. Harold Wiener, 191; cessation of work at Beth-Shan, 192; corrections, 193; work at Tell en-Nasbeh, 193; Congress of History of Religions, 194.

Obituary, 134.
Ophel, excavations at, 1, 118, 191; special donations for, 5, 71, 130, 196; Mr. Crowfoot's reports, 9, 75, 150; history of the hill, 138.
el-'Oreimeh, Tell, Egyptian inscription at, 120.

Penuel, identification of, 121.
Phythian-Adams, Rev., letter on excavations, 59, 67.

St. Theodore, church of, at Jerash, 21.
Sand, strewing, practice of, 123.
Serpents, fiery, 58.
Shechem, excavations at, 2.
Shemron-Meron, 60.
Siloam tunnel and inscription, 145.
Sinai script, the, and the alphabet, 48.
Skifta, rock-cut place at, 223.
Susakim, site of, 175.
Suweinit, Wady, 167.
Synagogue at Beth-Alpha, 115, 126; at Jerash, 211, 215.
Taanach, cuneiform tablets, 122.
Transliteration, table of, 63, 190.

Wiener, Mr. Harold, death of, 191.

Zodiacal mosaic at Beth Alpha 115, 126.

THE

PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

We print here an interesting report from Mr. Crowfoot, summarizing the results of his three months' work. Unfortunately for the work of excavation, this has proved the wettest autumn since the war, and at the time of writing the report there had already been six inches of rain. As the full winter downpour may be expected shortly, it is not likely that very much work will be undertaken this winter beyond what Mr. Crowfoot has already in hand in order to clear up minor points.

The plans for the new year will shortly have to be considered by the Committee, and it will be a serious question for decision as to whether to continue to excavate "Ophel" or whether to turn to other sites—and they are many—still awaiting exploration. The Committee would be glad to have the views of Members on this important subject.

The Rev. Garrow Duncan recently delivered the 1928 series of Croall lectures at Edinburgh. Their general title was, "Recent Archaeological Discoveries in Palestine and their bearing on the Scripture Records." The *Scotsman* and other papers gave a good account of the six which constituted the series (November 21–December 7). Mr. Duncan began with the earliest civilizations: the cave-dweller and the Amorite. Then came the Hyksos, with a contemporary Cretan influence, which he attributed to the Hittites. The "Hebrew" period dated from about 1200, but the

older "Canaanite" ware does not give way to the badly made Israelite imitation till a century or so later. The Hebrews were largely imitators, but in the reign of Solomon we find a great advance in building, and Mr. Duncan suggests that at that time the Hebrew was the highest civilization and the leading power in the whole East. Turning to the early religion, he referred, in passing, to the hundreds of Astarte-figurines which he found in the debris thrown over the East Wall of Jerusalem, suggestive of a response to some strong appeal made by Isaiah, or some other prophet. The fifth lecture was on burial customs, where he remarked that in the Christian period, the tomb-deposits were of the same nature as before, indicating that the eschatology would thus seem to be the same, though the objects themselves might not have been deposited with the same ideas as before. In conclusion, he commented on the mutual confirmation of archaeology and the Scriptures. As was indicated by various biblical passages, the Israelite conquest must have been a very gradual one, and excavations showed that the great cities (Jerusalem, Megiddo, etc.) were all captured either by David or Solomon. All in all, the lectures covered a wide field, and we shall look forward to their publication.

East of Nablus, at Balata, the site of the ancient Shechem, Dr. Welter has been excavating on behalf of the German Archaeological Institute. A remarkable blunt-topped pyramid was crowned by a chamber 85 feet by 68 feet, with walls 16 feet thick, flanked by two towers. This may be the Tower of Shechem (Judges ix, 49). On Mount Gerizim was uncovered the Christian Church which the Emperor Zeno built in A.D. 484. We hope to give some account of this from the pen of Dr. Welter in the next issue.

The second campaign at Tell Beit Mirsim, south of Hebron, has been concluded. The clear stratification of the place is a valuable guide to the archaeological history of Palestine. The most interesting find has been the lower part of a limestone stele representing a female figure, barefoot, in a long dress, with a large serpent coiled about her legs. Together with the discoveries of serpent-motives at Beisān, it points to the extent of serpent-cults in early Palestine.

The expedition organized by Sir Charles Marston disclosed the ancient walls of Ai ; and it was reported that the city dated from the early Bronze Age, and was totally destroyed in the late Bronze Age. At Hazor (el-Kedah, 4 miles south-west of Lake Merom), Professor Garstang discovered a great camp-enclosure, 1,000 yards in length, and protected by earthworks 100 feet high. The camp had been burned and abandoned during the late Bronze Age, but later reoccupied. Sir Charles Marston (*The Daily Telegraph*, October 10) stated that Professor Garstang was making a study of other sites mentioned in the books of Joshua and Judges, and that " the main object of his expedition is to endeavour to date the conquest of Canaan by Joshua." Sir Charles has sent us a report from the Rev. W. Phythian-Adams, of which we print portions in this issue (below, pp. 59 *sqq.*), together with some miscellaneous notes on recent excavations.

The Hebrew Union College of America, and the Hebrew University of Jerusalem, have been excavating near Jaffa, at the " mound Napoleon," or Tell Gerisha. Remains went back to the Middle Bronze period (*c.* 2500-2000 B.C.), and comprised parts of the city gates, pottery of Aegean influence, and new types of painted vessels. Vessels of flint were found, and evidently remained in use, especially for religious purposes. (*Jewish World*, November 22.)

By an arrangement with Sir Flinders Petrie, Members of the P.E.F. are enabled to purchase at half the published price the Reports of the British School of Archaeology in Egypt dealing with that Society's researches in Palestine. Reciprocally, the excavation Reports of the P.E.F. henceforth issued are available to Members of the School in Egypt similarly at half-price. P.E.F. Members desirous of taking advantage of this privilege should apply to the Secretary, 2, Hinde Street, W.1.

Subscribers in the United States are asked to kindly note that subscriptions should be forwarded to the Hon. General Secretary, Prof. W. M. Randall, of 55, Elizabeth Street, Hartford, Conn., U.S.A.

Antiques for Sale.—A small collection of antiquities from the excavations at Ophel is on view at the Museum of the Fund, 2, Hinde Street, Manchester Square, W.1, and a number of duplicates, including pottery lamps, stamped Rhodian jar-handles, etc., are on sale.

The Committee are glad to report that the *Annual*, 1923-25, on the Ophel Excavations has been published and is on sale. The price is £2 2*s.* to non-subscribers.

The account is by the excavators, Prof. Macalister, Litt.D., and the Rev. Garrow Duncan, M.A., B.D., and consists of four chapters on the Narrative, the Rock Surface, Rock-cuttings and Constructions and Miscellaneous Finds, with an Appendix on Greek Inscriptions stamped upon Jar-handles (pp. 1–212). There are two important maps, an air-photograph of Mount Ophel, 26 plates and 217 illustrations. The maps, which were prepared under the supervision of Sir Charles Close, K.B.E., C.M.G., F.R.S., the Fund's Honorary Treasurer, show the results of all the excavations made upon the Ophel ridge during the last sixty years.

Mr. H. C. Luke's translation and annotation of a 16th century MS., under the title of *A Spanish Franciscan's Narrative of a Journey to the Holy Land*, is on sale at 4*s.* bound in cloth, and 2*s.* 6*d.* in paper covers.

The new plan of Jerusalem on a scale of approximately 1 : 5000, or about 12 inches to a mile, recently published by the Pro-Jerusalem Society, is now on sale at the P.E.F. office. Unmounted it measures 39 × 34 inches, and the price is 5*s.*; mounted on cotton and folded to size 8 × 6 inches, price 9*s.* The latter form is the more convenient, as owing to its size, the unmounted sheet cannot be sent through the post without a fold.

The library of the Palestine Exploration Fund contains many duplicate volumes. They may be had separately, and a list, with the price of each volume, has been prepared, and can be obtained on application.

The list of books received will be found below.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but they are preserved in the office of the Fund, where they may be seen by subscribers.

The Committee gratefully acknowledge the following special contributions towards the Ophel excavations from :—

	£	*s.*	*d.*
Sir Charles Marston	1,000	0	0
Bishop of Hereford	5	0	0
Owen S. Tudor, Esq.	2	2	0
Capel Morris, Esq.	5	5	0
Rev. L. A. Handy	0	10	0
Ernest Woolley, Esq.	2	2	0
G. Beaumont Beeman, Esq.	4	14	6

A complete set of the *Quarterly Statements*, 1869–1910, containing some of the early letters (now scarce), with an Index, 1869–1910, bound in the Palestine Exploration Fund cases, can be had. Price on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £12 12*s*. A catalogue describing the contents of each volume can be had on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The Museum at the office of the Fund, 2, Hinde Street, Manchester Square, W.1, is open to visitors every week-day from 10 o'clock till 5, except Saturdays, when it is closed at 1 p.m.

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from Prof. Randall, Honorary General Secretary to the Fund, Hartford College, Conn., U.S.A.

The Committee have to acknowledge with thanks the following :—

The Near East, October, 18 : The Mandaeans of Irak, by E. S. Stevens (*continued* in October 25) ; November 1 : A journey in unknown South Arabia, by Bertram Thomas (interesting and important) ; November 22 : " Dead Sea Salts " ; The Kurds, by A. Safrastian.

The Expository Times, August: Time-measures of the Pentateuch, by Rev. A. T. Richardson; October: Altars and Sanctuaries in the Old Testament, by Canon Battersby-Harford (*continued* in November and December).

Liverpool Annals of Art and Archaeology, XV, 3–4: The Oxford excavations in Nubia, by F. Ll. Griffith: defensive armour in Homer, by H. L. Lorimer.

Journal of Egyptian Archaeology, November: The pig and the cult-animal of Set, by P. E. Newberry; Egyptian Prehistory, by G. A. Scharff: A Ramesside royal statue from Palestine, by H. R. Hall; A royal statue of the New Empire from Galilee, by W. F. Albright and Alan Rowe; Silver in ancient times, by A. Lucas.

The New Judaea, October 26: The history and significance of the Western Wall, by Rev. Dr. J. H. Herz; November 30: The Western Wall, by Nahum Sokolow.

Journal of the Society of Oriental Research, October: The decipherment of the Sinaitic (Serabit) inscriptions and the Phoenician alphabet, by Amelya Hertz.

Annual of the American Schools of Oriental Research, vol. viii: Southern Kurdistan, by E. A. Speiser; Miscellaneous antiquities from South Babylonia, by R. P. Dougherty; The American Palestine Exploration Society, by W. J. Moulton; The so-called Sumero-Indian seals, by G. A. Barton.

Bulletin of the American Schools of Oriental Research, October: The second campaign at Tell Beit Mirsim (Kirjath-Sepher), by Professor Albright.

Homiletic Review.

The Jewish Quarterly Review.

Bibliotheca Sacra, October: Excavations at Tell Beit Mirsim, by President Kyle.

The Geographical Review (New York).

The Oriental Institute of the University of Chicago, Circular No. 2, August, 1928.

Canadian Journal of Religious Thought, June: Excavations in Palestine since the Great War, by Samuel Mercer.

American Historical Review, July: The historical results of recent exploration in Palestine and Iraq, by George A. Barton.

Revue Biblique, October: Abraham in the background of history, by P. Dhorme; The Canaanite Baal of Beisān and his consort, by Père H. Vincent; The circuit of Transjordania, by F. M. Abel.

Bulletin de Correspondence Hellénique, vii–xii, 1927.

Palästinajahrbuch for 1928 : Earthquakes in Palestine ; Gate of the Valley ; Topographical studies, by the Editor, Albrecht Alt ; Landed property in Palestine in the time of Jesus, by Herz ; Roman roads and stations in the neighbourhood of Jerusalem, by Kuhl.

Archiv für Orientforschung, v, i : Sumerians and Semites in Babylon, by Bruno Meissner ; The vision of Nahum, ii, 4–11, by P. Humbert ; A Babylonian text in Greek, by W. G. Schileico ; Representatives of chariots in North Syrian art, by Przeworski ; survey of excavations ; pp. 228–30, rev. of Macalister and Duncan, Excavations on Ophel (by P. Thomsen).

Orientalistische Literaturzeitung, October : The books of Samuel, by O. Eissfeldt ; November : Egyptian cavalry and the Old Testament, by Max Löhr.

De Palestijnsche Achtergrond van der Pentateuch, by J. de Groot. An address on the Palestinian background of the Pentateuch (The Hague, 1928).

Journal of the Palestinian Oriental Society, viii, 3 : Plant-lore in Palestinian superstition, by T. Canaan ; The site of Gibeon, by A. Jirku, etc.

La Revue de l'Académie Arabe, Damascus, 9–10.

Bible Lands, October : Locusts ; Recent excavation in Bible Lands ; Excavations at St. Euthymius, by Rev. D. J. Chitty.

Jewish National and University Library, Notes and News.

Al-Mashrik, November : The history of Jaffa, by P. Marmardji ; the Oriental Congress at Oxford, Eric Burrows ; the mixture of peoples in the XIVth century B.C., M. Chéhab.

Mir-'Ali-Shah-Nevai. A miscellany to celebrate the 500th anniversary of the birth of the Turkish Poet.

The following gifts to the Museum, by Miss C. M. Finn, in remembrance of the late Consul and Mrs. Finn, are gratefully acknowledged :—

1. A composite model of the Haram Area, showing the Dome of the Rock, etc., and beneath this the rock-surface of Mount Moriah, constructed under the direction of the late Mrs. Finn, and used by her in lecturing on behalf of the Fund.

2. Pottery foot of a statue, found on the Mount of Olives, illustrating the Shoe-latchet mentioned in Mark i, 7.

We have to thank also :—

Mr. R. I. Money, for the gift of a set of *Memoirs of the Survey of Western and Eastern Palestine.*

Miss Estelle Blyth, for *The Order of the Hospital of St. John of Jerusalem*, by H. W. Fincham.

Miss Evelyn Blyth, for *Christians at Mecca*, by Augustus Ralli.

Mr. E. J. Pilcher, for *Journal of the Royal Asiatic Society*, July and October, 1928.

The Committee will be grateful to any subscribers who may be disposed to present to the Fund any of the following books :—

The Memoirs of the Survey of Western Palestine.

The Quarterly Statement, from 1869 up to date.

Duc de Luynes, *Voyage à la Mer Morte* (1864) ; published about 1874.

K. von Raumer, *Der Zug der Israeliten.* (Leipzig, 1837.)

Lagarde, *Onomastica Sacra* (1887).

New Edition of the Babylonian Talmud, English Translation. Original text edited, formulated, and punctuated by Michael L. Rodkinson. Revised and corrected by the Rev. Dr. Isaac M. Wise. Published by the New Amsterdam Book Company, New York. Vol. i, *Sabbath*, already in the Library ; subsequent volumes wanted.

Whilst desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they do not necessarily sanction or adopt them.

Form of Bequest to the Palestine Exploration Fund.

I give to the Palestine Exploration Fund, London, the sum of_____ to be applied towards the General Work of the Fund ; and I direct that the said sum be paid, free of Legacy Duty, and that the Receipt of the Treasurer of the Palestine Exploration Fund shall be a sufficient discharge for the same.

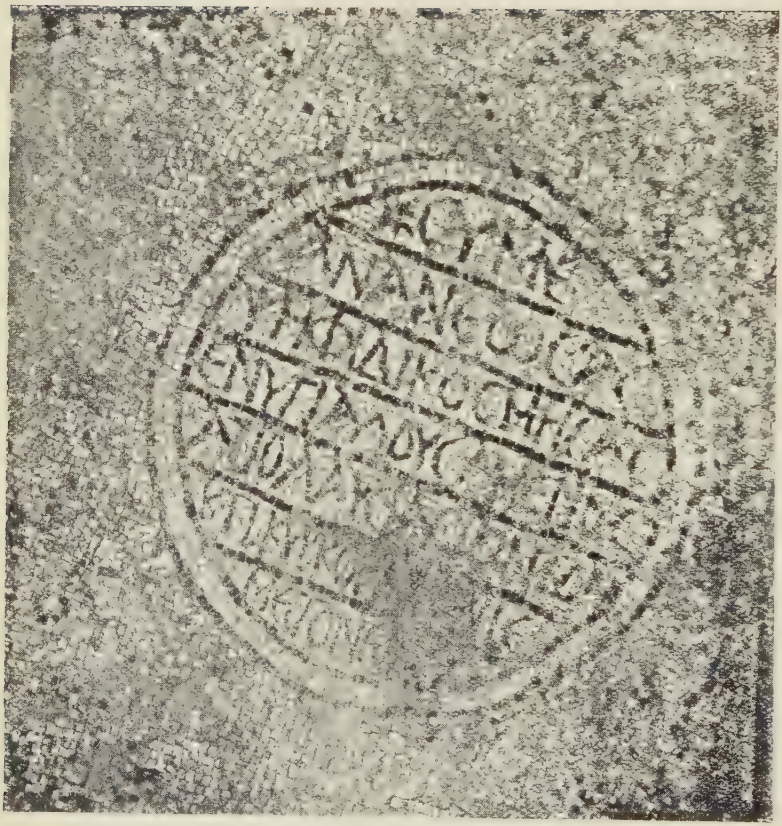
Note.—*Three Witnesses are necessary to a Will by the Law of the United States of America, and Two by the Law of the United Kingdom.*

West side of north wall of Cistern of Nehemiah (?) in Field 9. Oct. 21.

To face p. 8.]

The old wall at the north-west corner of Field II, with a medi[illegible] (?) cistern on the left (see p. [illegible]).

The Street, looking south, in Field 11.



The Mosaic.

EXCAVATIONS ON OPHEL, 1928.

PRELIMINARY REPORT TO DECEMBER 8.

By J. W. Crowfoot, C.B.E.,

Director, British School of Archaeology in Jerusalem.

The latest campaign on Ophel, which the munificent support of Sir Charles Marston has enabled the P.E.F. to promote, has been, like that of 1927, directed by the British School of Archaeology in Jerusalem. At the writer's request the authorities of the Hebrew University very generously placed at our disposal the services of Dr. E. L. Sukenik, who has taken charge of the registration of all objects found in the course of the works, and has rendered great help throughout our operations. Mr. C. N. Johns, the Librarian of the British School, has assisted daily in the supervision of the field-work, and has helped with the registration of the objects found and the study of the coins. William Effendi Gad has been engaged as surveyor to the expedition, and Mr. N. Reiss as draughtsman. We have again to express our warm thanks to the Department of Antiquities for much assistance, and to Ruhi Bey Abdel Hadi of the District Office, who has been indefatigable in smoothing over the difficulties with cultivators and proprietors which seem inseparable from work in Silwan.

2. The area which we have leased measures nearly three-quarters of an acre and consists of the western portions of three fields, numbered respectively 9, 11 and 13, all on the east side of the modern path leading down to the Pool of Siloam. The east half of Field 9 was excavated by Mr. Garrow Duncan, and some of the natives say that Sir Charles Warren ("Harrani") dug in the east part of Field 11. Field 13, so far as we know, has not been touched. We have been at work for more than ten weeks, and hope to complete the excavation before the end of the year, if the weather holds out. Work in Field 13 has not been started yet, but the excavation of the other fields is very nearly finished. We have only lost three working days hitherto through rain.

3. We knew from the excavations of Mr. Duncan in Field 7, the field just north of Field 9, that the ridge of "the city of David" originally ended on a line running a few yards east of the pathway which forms the west boundary of all these fields, and that west of this line the ground fell away into the Tyropoeon valley (see *Q.S.*, January, 1928, p. 12). In Field 9 we found that at the north end

of our area the valley originally began about 5 yards east of the line of the modern pathway. At this point the rock drops steeply in an S-shaped curve from the top of the ridge to the first ledge or terrace in the valley. The height of the drop is about 15 feet, and the cliff overhangs so as to form a low cave or shelter at the base. The rock on the top of the ridge is what is locally known as *maliki*; the rock on the valley terrace and in the low cave above it is red *mizzi*. For about 5 yards from the north end of Field 9 the face of the rock has never been scarped, perhaps because it was immediately behind the massive south tower of the gate which was discovered in Field 10 in 1927. Further south, for a distance of more than 50 yards, the rock seems to have run originally in a succession of small bays, but between the projecting spurs which made these bays it was scarped at some time, or times, to form the back wall of a series of constructions. Further south still, that is, in the southern half of Field 11, we could find no trace of spurs or cliff—these may lie further west: in our area the rock dropped from the ridge in a series of steps which were partly natural and partly artificial. The modern path bends slightly west of south, and in the middle of Field 11 the scarp where last seen was about 9 yards from the line of the path. Along the whole west side of our area, therefore, there is a strip between 5 and 9 yards in width which formerly belonged to the valley, not to the ridge; and all along this strip there is a varying accumulation of debris above the rock, which is nowhere less than 18 feet below the surface, and in this debris the conditions of stratification approximate closely to those found in Field 10 in 1927.

4. East of the strip we have just described is the ridge on which the city of David is generally now supposed to have stood. Our experiences here have been disconcerting. At the north end of Field 9 the rock still rises to within a few inches of the surface, except where it has been levelled down to form the floors of rooms or cisterns or drains. Where it has not been cut down for some definite recognizable purpose of this kind, there was no trace of general levelling, and in many places we imagined we saw the original surface of the rock as it may have been in the days before David. If we are right, the top of the ridge then looked as if it had been formed by the crushing together of a cluster of flat dome-shaped masses of rock, separated from each other by irregular fissures which have been, in some cases, widened later and

converted into drains. Every generation, perhaps from the time of the Amorites, has lived on approximately the same level, and the surface remains which we found below the present cultivation level were the foundations of comparatively recent houses, all probably posterior to the Arab conquest. The most striking feature found was a large cistern excavated just below the highest point in our field: the cistern was reached through a funnel-shaped mouth about 9 feet long, it was roughly square and would have held about 400 tons of water, the walls were covered with good red cement. Over 90 per cent. of the potsherds which were found in this area, generally in rock crevices, were Byzantine or later in date; one or two fragments only went back to the time of the monarchy or earlier.

5. The conditions just described prevail over the north-east corner of our plot: south of this the old rock surface has disappeared, and we descend over a steeply scarped face into a series of rock-cut chambers which have long ago lost their roofs. The south-east corner of our plot in Field 11 is entirely occupied by a single complex of these subterranean chambers. This complex contains 2 staircases, and at least 5 rooms, one of them over 37 feet in length. A somewhat similar complex of rooms exists in Field 15, and has been described by Mr. Duncan in the *Q.S.* for January, 1926. Unfortunately the rooms in our complex were used down to a late date in the mediaeval or Arab period, and the small objects found in them consequently throw no light on the original purpose for which they were made. It would be premature to speculate on this purpose until the whole of one complex at least is cleared completely, but there is no reason at present to exclude the possibility that some of the rooms may have been excavated originally to serve as tombs, though nothing funerary has yet been found. In Field 11 the rock has also been honeycombed with ancient cuttings, some of which present many of the features presented by the subterranean rooms in Field 9 and belong apparently to the same period. Some, but by no means all, of them were cut to serve as cisterns, and one of them is still in use as a cistern.

6. From the last three sections it will be evident that the valley strip is much more promising than the top of the ridge, and the most interesting finds that we have made hitherto lie in this part.

The oldest walls that we have found belong to what appears to have been a built cistern in the north-west corner of Field 9.

This we found in the first three weeks of our work, and I wrote the following report on it to the Committee on October 21 :—

"The cistern which we have cleared (No. 12 on the plan) was about 2·8 metres (about 8 feet) wide and 6 metres (over 19 feet) deep, the rock having been excavated about 2 metres (6 feet 6 inches) below the original level. The original walls, which, like the rock, were covered with a coat of poor grey plaster, are of considerable interest. The north wall was 3·35 metres (over 10 feet) high and contained 8 courses ; the south wall was 2·45 metres (over 8 feet) high and only 6 courses remained ; they were 0·90 metres (about 3 feet) thick. Each course was constructed of a row of stretchers backed by a row of headers, the position of headers and stretchers being reversed every course to secure a bond. This type of masonry was found at Samaria by Dr. Reisner and assigned by Dr. Fisher to the first post-Israelite period (*Harvard Excavations at Samaria*, p. 130) ; it resembles also some of the coursing which we found last year in the middle of the south wall of the North Gate tower leading into the Tyropoeon, and the dressing and appearance of the stones is similar. Our cistern was therefore probably constructed between the city wall and the scarp about the same time as the gateway was repaired, perhaps, in the time of Nehemiah. Just north of the north wall of the cistern a trench, cut for constructional purposes in the rock, projects for about 18 inches from the wall, and in this trench we found a stamped jar-handle with a pentagram and potsherds from burnished bowls and a hole-mouthed jar, which confirm the date suggested. At the very bottom of the cistern we found the remains of two or three pots of the Herodian or Early Roman period ; from these we conclude that the cistern was destroyed in the time of Titus and not subsequently reused.

"The 'cistern' lies close to the path, and the west wall cannot be found without breaking through the path and arranging for another road in the opposite field. These arrangements have now been made, but we have not yet found the west wall. The north wall of the cistern has been traced for a total length of 15 feet, but at this point, much to our surprise, it turns, not south, but at right angles towards the north, and we have followed a single course of it in this direction for another 3 metres (9 feet), the plaster continuing over the face of this extension. This wall will probably

join the south wall of the South Gate tower in another metre or so, but it may take us another week's work to clear up the position, and for the present the plan of the 'cistern' is uncertain."

7. The walls which we have described in the preceding paragraphs were built on the rock, and they are probably the oldest we have found. Some way to the south and very close to the path we have discovered over a length of some 25 yards one or two courses of an old wall which may have formed part of the city wall. We found traces of this first in the north-west corner of Field 11, about 19 feet 6 inches below the surface and very close to the edge of the field. In the first section we uncovered the stones were bonded in a style which has been shown elsewhere (*e.g.* at Samaria, Megiddo and Tell el-Ful) to be characteristic of the period of the Hebrew Monarchy. The stones in the upper course were laid, as shown in Plate II, as mixed headers and stretchers, the headers being more numerous than the stretchers. The wall was broken through by a later intrusive wall about 10 feet south of the north boundary of the field, but another fragment about 6 feet in length was found beyond the intrusive wall. A late cistern, probably of the Mamluk period, had been built here west of the old wall which served as its east side; here, too, there were more headers than stretchers. South of this point we have found no trace of the wall, though we have dug down to the rock all along the south-west part of Field 11, but it extends to the north in Field 9 for about 18 yards, being lost ultimately in a cistern which we are inclined to assign to the Constantinian period.

When we first found the wall we were led by the character of the masonry to attribute it to the time of the Monarchy, but further investigations have compelled us to date it considerably later. To explain this change of front we shall have to examine in some detail the stratification found at two points on the line of the wall where we have descended down to the rock. The first of these points is at the south-west corner of Field 9, the second about 10 yards further north, close to the Constantinian (?) cistern, where we have for the present lost sight of the wall.

At the first of these points there is the threshold of a Byzantine house of the late 6th century, some 3 feet above the top of the upper course of the wall. Two courses only of the wall remain, each about 21 inches high. The bottom course is set in a mass of white stone chips, which is 8 or 9 inches thick in places and extends

about 3 feet west of the wall. These stone-chips are clearly masons' debris, the result of the shaping and facing on the spot of the stones for the wall. Between this white band and the Byzantine floor level there is a mass of heavy debris exactly like that in the "stratum of destruction" which we found on a much larger scale in the middle of the valley in Field 10: in both places we believe it to be the result of the destruction of Titus. Below the white band there is a stratum of light-brown soil about 27 inches thick, with traces of charred wood in it, and then there is another white band only about an inch thick, again presumably of masons' debris. Below the second white band the character of the soil changes entirely, and for the next 34 inches—that is, until the rock (red *mizzi*) is reached—the soil is black.

At this point, therefore, we have three different strata to interpret:—(1) The uppermost stratum we have already assigned to the period between Titus and the 6th century A.D.; (2) the middle stratum is that to which the wall belongs, and in this stratum we found four large four-handled jars which certainly belong to the Hellenistic period, a few Rhodian jar-handles and a great number of potsherds from plain household vessels of the same time. In the more northerly of the two points mentioned we found also in the middle of the white band close to the wall a small hoard of 24 copper coins, most of them stuck to one another. We are unable to decipher these at present, but from their size and weight we are confident that they belong to the Seleucid period. It may be regarded, therefore, as tolerably certain that the wall is of the Hellenistic age. If numismatists assign the coins to the 3rd century, the wall may be the work of Simon the Just (*see* Ecclus. l, 4); if the coins are later, it may be part of the Akra; (3) the lowest stratum is a stratum of black soil, a stratum, that is, of intensive occupation, if not of cultivation. There is no trace of any building in the small trenches we have dug in this stratum, but the potsherds found suggest that it is the level of the period of the Monarchy.

The excavation is not completed yet, and until we have cleared the ground, first, between the "cistern" mentioned in sec. 6 and the south tower of the Gate, and, secondly, between the wall which we have just described and the "cistern," we cannot speak more positively.

8. The confidence with which we have assigned the Byzantine remains mentioned in the preceding section to the 6th century A.D.

is due to the fact that they are built on the axis of a paved street which is the continuation of the street uncovered last season in Field 10 (Plate III). This street entered Field 9 a little west of the "cistern" described in sec. 6, and runs across Fields 9 and 11 exactly in line with the west wall of the Haram enclosure, like the portion of it previoulsy discovered. Over a large part of the new area the paving is even better preserved than in Field 10, but the houses on each side of it, except in the valley strip, have been completely razed to the ground and only some of the floors remain. To the most interesting of these floors we shall return in the next section, but before this we must refer briefly to a series of rock-cuttings which underlie the street. The street runs obliquely across the fields in a south-easterly direction, and the built drains which served it emptied into the Kedron valley, but below the street drains there is a second drainage system which is mainly cut in the rock, and the drains which belonged to this system emptied into the Tyropoeon valley. Besides the drains there is a series of what are apparently rock-cut foundations and thresholds, and these are on the same axis as the complex of rock-cut chambers mentioned in sec. 5. The rock-cut rooms and drains on this axis are therefore certainly much earlier than the Byzantine period, but we have not yet found any definite and indisputable evidence to show to what earlier period they are to be assigned, whether Constantinian, Herodian, Persian, or Hebrew.

9. The most interesting of the Byzantine mosaic floors which we have found contains an inscription in seven lines, which is shown on Plate IV, and we will conclude this report with a brief account of this discovery :—

The room in which the mosaic was laid is on the east side of the street, and approximately on the same level, but not quite on the same axis. The difference in axis may be due to a slight difference in date, the mosaic may be a little earlier than the street, or it may be due to the fact that the room in question had to be adapted to a pre-existing system of rock-cut chambers. The room measured about $8\frac{1}{2}$ by $3\frac{1}{2}$ metres (9 by $3\frac{3}{4}$ yards), and the floor was covered with mosaics of a peculiar size ; the ordinary tessera of the 6th century was only from 10 to 15 millimetres thick, but these tesserae vary from 30 to 40 millimetres. Three colours are used—red, white and black. The red and white tesserae are cut from blocks of the

local *mizzi*, the black from a bituminous rock found at Nebi Musa. The ground of the mosaic is white; a double black border runs round the edge, and within this border the field is divided diagonally by lines of red tesserae. The inscription is on a medallion in the centre of the room, the circle, lines and letters being all in black tesserae.

The mosaic was laid within a few inches of the rock, and Père Mathieu had great difficulty in lifting it. Beneath the mosaic a few coins were found; the latest of these is a coin of Justinian minted at Alexandria, which can hardly be earlier than A.D. 558 (see *Imperial Byzantine Coins in the British Museum*, I, p. 81), and the mosaic must be later than this, though it may be a little earlier than the street.

For help in the translation of the inscription I have to thank Père Abel very warmly. It may be read and translated as follows :—

Text.

ϹΥ ΜΕ
ΑΝΑΝΕΩϹΑϹ
ΨΗΦΙΔΙ ΚΟϹΜΗϹΑϹ
ΕΝ ΥΓΙΑ ΛΟΥϹΑΜΕΝΟϹ
ΑΠΟΑΑΥϹΙΑϹ ΤΟΝ ϹΟΝ
ΚΤΙ/ ΚΥΡ ΚΟΜ/ ΕΥΓΕΝΙΕ
ΜΕ/ ΤΟΝ ϹΕ (ΑΥΤΟΥ)

Line 5 ΑΠΟΑΑΥϹΙΑϹ *for* ΑΠΟΛΑΥϹΕΙΑϹ (*aorist optative*)
Line 5 ΤΟΝ ϹΟΝ *for* ΤΩΝ ϹΩΝ
Line 6 = ΚΤΙ[ϹΜΑΤΩΝ] ΚΥΡ[ΙΕ] ΚΟΜ[ΕS]
Line 7 ΜΕ/ = ΜΕΤΑ ΤΟΝ *for* ΤΩΝ

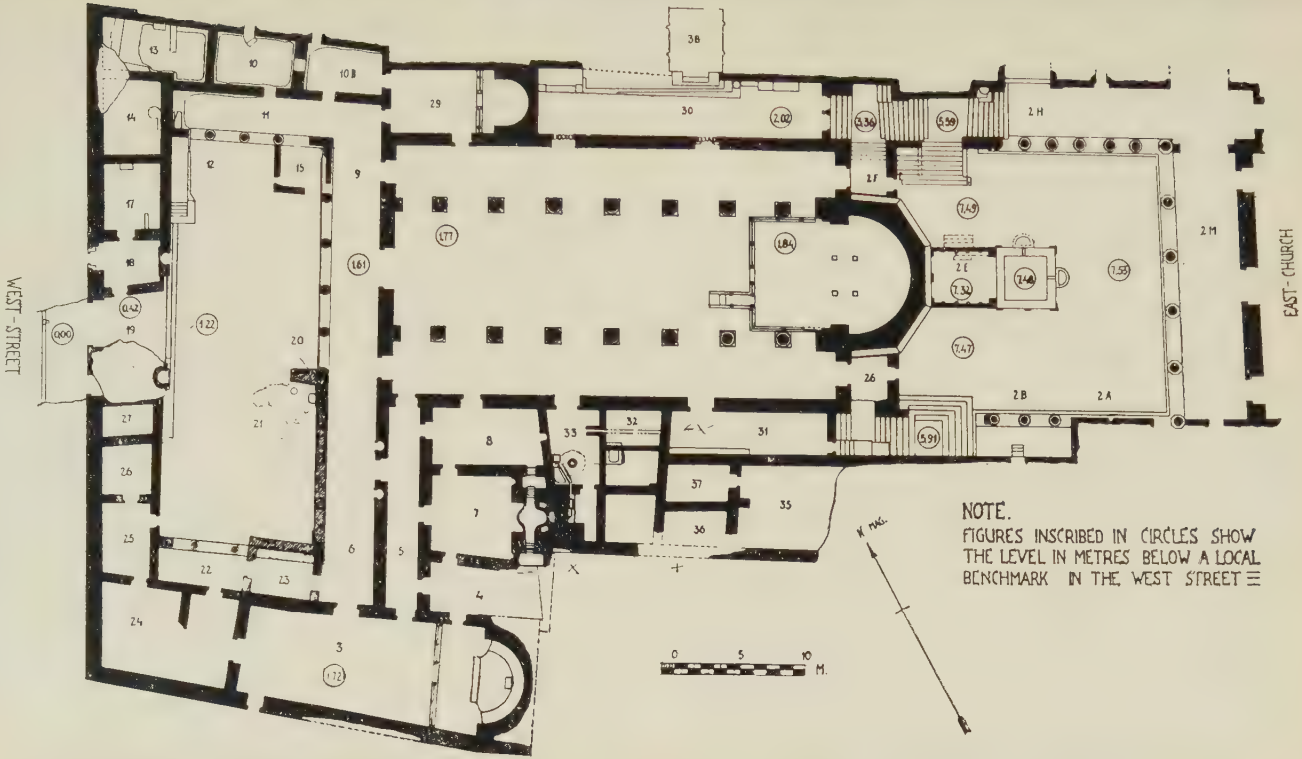
Translation.

"O thou who hast restored me and decorated me with mosaics, mayest thou, after having bathed in good health, enjoy thy foundations with thy family, O Lord Count Eugenius."

The house, of course, is supposed to be addressing its founder, who presumably had restored the complex of rock chambers adjoining the mosaic, and perhaps installed a public bath there.

To face p. 16.

JERASH — THE CHURCH OF S. THEODORE


WEST-STREET
EAST-CHURCH
NOTE.
FIGURES INSCRIBED IN CIRCLES SHOW THE LEVEL IN METRES BELOW A LOCAL BENCHMARK IN THE WEST STREET
N. mag.
0 5 10 M.

Numerals inscribed in circles show the level in metres below the West Street (0.00). Other numerals refer to the description of each room. The principal reference numbers are :—3. South Church; 7. Baptistery; 9–11. Colonnades of the Atrium; 20. The Atrium; 30. North corridor leading to 2A, Fountain Court with colonnades 2H, 2M. (In the photograph from which this plan is reproduced there is a slight distortion: the west wall of the East Church and the east colonnade of the Fountain Court are much more nearly parallel to the west wall of S. Theodore's Church than appears to be the case.)

FIG. 1.—The Atrium, from the north angle, looking south, showing north and west colonnades; and behind them the west wall of the Church of S. Theodore: fallen columns of the nave beyond, to left. In the middle distance is the oval colonnade of the Forum, and the south road leading to the Amman Gate on the ridge beyond and to right of the tents.

FIG. 2.—The Church of S. Theodore, looking towards the north-west angle of the Nave, with prostrate columns. The small door on the right leads to Room 29 on the plan. Through the main west door is seen the small staircase (12) against the west wall of the Atrium. On the high ground to right is part of the Temple of Artemis.

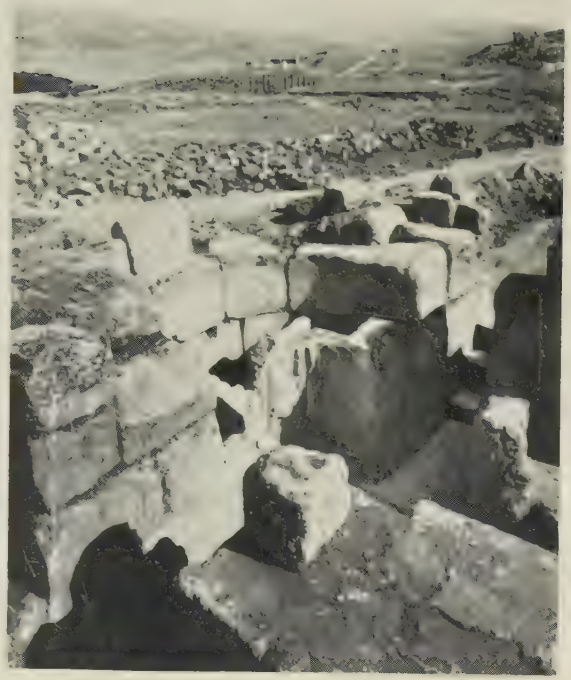


Fig. 3.—The Baptistery east of Room 7, looking south, with steps down from Rooms 4 and 8: Forum colonnade and Amman (south) Gate beyond.

Fig. 4.—The Church of S. Theodore: the Nave, looking north from the south-east angle, with fallen columns and the Temple of Artemis beyond.

FIG. 5.—The Fountain Court, looking north from the south-east angle, with Apse of S. Theodore's Church to left, and the Temple of Artemis in background.

FIG. 6.—The Fountain Court, looking east from the angle between north and west colonnades. The Bishop's Seat is against the Apse of the Church to right of the fountain-plinth. Through the door left of the right-hand steps (leading to the north Aisle) appears a fallen column of the Nave.

THE CHURCH OF S. THEODORE AT JERASH.

By J. W. Crowfoot,

Director of the British School of Archaeology in Jerusalem.

The excavation which is described in the following preliminary report was the work of a joint expedition sent out, under the direction of the writer, by Yale University and the British School of Archaeology in Jerusalem. The other members of the expedition were Mr. J. B. Robertson of Yale, Mr. A. H. M. Jones of All Souls College, Mrs. Jones, Lieut.-Commander A. G. Buchanan, R.N. (Ret.), Mrs. Crowfoot and Miss Dorothy Crowfoot. The two main objects of the expedition were the excavation of S. Theodore's church, which is the subject of this note, and the study of the new inscriptions which have come to light during the last few years—Mr. Jones undertook this branch of our work in addition to the record of the objects found in the excavation. Mr. Robertson, besides assisting me at S. Theodore's church, supervised three minor excavations, one of which resulted in the discovery of an interesting church on the east bank of the river, with dated mosaics of the year 525. The plans of both works were made by Mr. Buchanan. Great assistance was given to the expedition throughout the season by the Antiquities Department of H.H. the Emir of Transjordan. For contributions to the British School's share of the expenditure we have to thank Mr. Henry J. Patten, the Byzantine Research Fund, and the Craven Fund of the University of Oxford.

§ I.

Jerash, or Gerasa as the Greeks wrote it, was for many centuries capital of the district of Gilead. A tributary of the Jabbok, fed by several local springs, ran through the middle of the town; the ground rises steeply on both sides of the stream, which was spanned in antiquity by two bridges at least, and the hilly slopes on both sides are covered with remains. There are several villages round about which are also blessed with good springs of water; the vine and the olive both flourish in the neighbourhood. Jerash was

happily placed, too, in respect of trade, for the route which ran from Petra and Amman to the Phoenician cities passed through it, and another road joined it with Damascus. It has been rightly regarded as an outpost of Hellenism, but the population was mixed ; a number of Semitic names occur on the inscriptions, and during the first Jewish revolt the Gerasenes, according to Josephus, treated the Jews in their midst with much toleration and with more humanity than other towns across the Jordan.

Of its history we know little. For some centuries it was also called Antioch on the Chrysorroas, and it must therefore have been refounded by one of the kings named Antiochus, but which we cannot say, and the only certain objects from Jerash of the Hellenistic period which are known to me are some potsherds and a jar-handle which were discovered during our recent excavations, though some of the fluted columns and architectural fragments we found may be as old. The town was captured by Alexander Jannaeus about 83 B.C. ; twenty years later it was "freed" by Pompey, and the Pompeian era, 63 B.C., was used in the city until late in the sixth century at least. Most of the public buildings which are still standing date from the century-and-a-half which follows the Flavian settlement of Palestine : a large section of the colonnades, the Propylaea, the Nymphaeum, the Triumphal arch, and the greater part at least of the remaining portions of the two temples, the two theatres inside the town, and the Hippodrome, belong to this period. There are comparatively few inscriptions of the time between the middle of the third and the middle of the fifth century, but a reference by Ammianus Marcellinus shows that it was still flourishing in the middle of the fourth century, and Epiphanius a few years later mentions it as the scene of a famous annual miracle to which we shall return. There is no good reason, therefore, to suppose that it declined during this century simply because we have not found many inscriptions of the period. It is certain, on the other hand, that the fifth and sixth centuries, with which we are more particularly concerned, were times of very great building activity ; not only were churches built, but the fortifications and the street colonnades were repaired, there were new baths, and a third theatre was constructed outside the town. In fact, to judge from the epigraphic record, Jerash appears to have been hardly less prosperous at this time than in the second century

of our era. This prosperity did not disappear with the Moslem conquest. The Damascus Caliphs of the house of the Beni Umayya were fond of living in Transjordania and built a series of castles there; Jerash and other towns in this region prospered under their mild rule, and several Arab coins and lamps with Arabic inscriptions which belong to this early Moslem period have been found at Jerash. The downfall of Jerash seems to date from the middle of the eighth century. The church which we excavated was manifestly destroyed by an earthquake, and there was a violent earthquake in Palestine and Syria on January 18, 746 A.D., in which, according to the Byzantine chroniclers,[1] countless myriads of people perished, and churches and monasteries were overthrown, especially in the desert near Jerusalem. This date fits the latest class of objects which we found upon our floor levels, and so it seems reasonable to assume that Jerash was one of the places which suffered in this particular earthquake. The fall of the Umayyad dynasty, and the transfer of the Caliph's capital from Damascus to Bagdad, dealt a second blow to the prosperity of Transjordania, and when we next hear of Jerash in the time of the Crusades it was a small place of no significance.

So far as we can reconstruct it, therefore, the history of Jerash was a history of undistinguished peaceful prosperity for something like a thousand years. We cannot point to any violent break in the continuity of city life throughout this period, and the excavator therefore should ask himself what he might expect to find in such a place; what would have been the appearance of the streets, the houses, the public buildings, in that sixth century with which we are interested?

In Jerash we are concerned with a civilization in some respects like our own, one which used noble building material and lasted on continuously from century to century. The streets were paved and drained, and they continued in being throughout the days of its prosperity; this implies that the building levels must have remained almost constant through this period, and that, before any rebuilding took place, the old must have been cleared away, just as in Europe to-day and at any time during the last thousand years. In old English towns, for example, we know that the

[1] Quoted by Vincent and Abel, *Jérusalem*, II, p. 937.

Roman stratum lies buried some 10 feet under ground, but we know also that its burial was due to the circumstances of the Anglo-Saxon conquest, and that since the recovery after that conquest the changes of level have been insignificant; we can still walk into churches of the Norman period on the level of our present streets, and the buildings which line our pavements may belong to any one of the intervening centuries. So it was, I imagine, with Jerash; in the sixth century there was at once much more of the pagan past surviving and much less uniformity in the general appearance of the town than might have been expected. The town-plan and the street levels were the same as they had been in the first century, but the buildings had been restored and renewed and adapted to new requirements again and again in the interval. Where we find Byzantine buildings we may not find anything *below* them, but we are quite likely to find Roman buildings *adjoining* them, and stray fragments from an earlier date may crop up anywhere.

The contentions advanced in the last paragraph may be illustrated by an inscription which will be published shortly by Mr. Jones. It records the paving with mosaics of "the Propylaea of the Lady Artemis"[1] by a man named Munatius, who was evidently a Christian because he had a cut in the very centre of the inscription as an integral part of it. The adornment of the precinct of the "Lady Artemis" was apparently still a matter of pride to a wealthy Christian in the Byzantine period, and this may explain why the two surviving temples are relatively so well preserved. The maintenance of baths and theatres in Christian times is natural enough, but this inscription suggests that the greatest temples were kept up also, perhaps only as public monuments but under their old names, though the lesser ones were no doubt pulled down to provide building material for churches and other objects of modern utility.

Actually, in spite of the number of late inscriptions, Christian monuments are not prominent at Jerash, as Mr. Butler has already observed. Speaking of Bostra, he remarks that, apart from the famous cathedral, very little of the Christian period is left upon the

[1] Incidentally it may be noted that this inscription is the most certain confirmation which has yet come to light of the dedication of the Great Temple.

surface, "though the church remains there are more significant than the vestiges of ecclesiastical architecture at either Amman or Jerash."[1] At Jerash there are traces of eight or nine churches at least and of only two pagan temples, but the former do cut a poor figure. For this there are two obvious reasons. In the first place, the churches were badly built; the material, looted from earlier buildings, was good, but the stones were carelessly laid. Secondly, the churches were the last great buildings to be raised, the first therefore to be used as quarries, the more so as they occupied the positions which were most accessible to the later occupants of the site. Before our excavations, the remains of the church of S. Theodore in particular were quite insignificant.

§ II.

All that we knew about the church of S. Theodore before our work began may be resumed in a few sentences. Its position on the west bank of the river in the centre of the town, close to the temple of Artemis, suggested that it was the most important, if not the largest, of the Christian churches in Jerash. A few courses of masonry at the west end, fewer still in the apse at the east end, and the drums of some broken columns between these points, were all the remains that were visible last March, and it was impossible to see even how many aisles the church once possessed. Beyond the west front of the church, remains of the west wall of what was evidently an atrium rose above the ground, and two important Greek inscriptions had been discovered—one near the entrance to the atrium, the other near the central doorway at the west end of the church.

The inscriptions were written in hexameters, and I am indebted to Mr. Jones for the following versions, which give a good idea of the stilted language in which they are couched. His translation of the atrium inscription runs as follows:—

> "I have been made a wonder and a marvel at once to passers-by, for all the cloud of unseemliness is dispelled, and instead of the former eye-sore the grace of God surrounds me on every side. And once from the four-footed beasts, that toiling died and were here cast out, spread forth a baleful stench, and often would a man going by grip his nose and stop the passage of breath,

[1] *Syria*, II, A. Architecture, p. 279 (Princeton Expedition).

shunning the foul odour. But now the wayfarers that pass over the scented plain carry their right hand to their brow making the sign of the precious cross. And if thou wilt learn this also, that thou mayst well know it, 'twas Aeneas that gave me the beauty, the all-wise priest, practised in piety."

The translation of the church inscription runs :—

"I am the undefiled house of victorious Theodore, immortal and godlike martyr, whose fame has flown o'er land and sea and the bounds of ocean. For his body is in the earth, but his soul after his doom sped to the broad heaven, where it for ever joins in the angelic choirs and abides an unageing defence and barrier against ill for the town and the dwellers therein and its citizens yet to be. By the grace of God the foundation of the holy martyrium was laid in the month Dios in the 3rd indiction and the lintel went up in the month Dios in the 5th indiction in the year 559."

These important inscriptions have been known for some years, with the exception of about ten letters at the beginning of each line in the second ; we had the good fortune to recover these from two blocks found near the central door at the west end of the church. The correct reading did not confirm a single one of the conjectural emendations put forward by the five or six scholars who have discussed this inscription![1] The date in the last line corresponds with the autumn of A.D. 496, and the foundations therefore were laid in the autumn of 494.

The saint to whom our church was dedicated was one of the greater military saints, like SS. George, Demetrius, Procopius, and another Theodore, who composed what has been happily called the General Staff of the Holy Army of Martyrs, saints who came into wide vogue not unnaturally when the defence of the Christian Empire made so many calls upon the Church Militant.[2] A witty appreciation of the stories which were told about him will be found in a small book by the learned Bollandist Father Hippolyte Delehaye.[3]

[1] See *Q.S.*, 1928, p. 192.

[2] The name of S. Theodore is coupled with the names of S. Longinus and S. George in a recently published inscription on the lintel of a "caserne destinée aux troupes de passage" on the road leading from Tripoli to Apamea. (*Syria*, IX, 1928, p. 167.)

[3] *Légendes Grecques des saints militaires*, Paris, 1909.

The epithet ἀλεξίκακος on one of the new fragments which we found may well refer to the military aid which he was supposed to give.

The dedication and the date of the church therefore we knew before we started, but otherwise the knowledge we could glean from what was still above ground was very meagre.

§ III.

Our excavations have shown that the church and atrium we set out to clear were part only of a much larger complex of ecclesiastical buildings, reaching from the boundary wall of the atrium in the west to the colonnaded street which ran north and south through the heart of ancient Jerash. From east to west this complex measures over 150 metres in length, and there is a fall of some 19 metres from the level of the threshold of the atrium to the level of the main street. The hill-side on which these buildings were erected sloped originally from west to east and from north to south, and on this slope the architects, partly by cutting, partly by building out and filling in, arranged three main building platforms or levels. The highest platform or level is about 58 metres from east to west and from 18 to 19 metres above the street level; it contained the church of S. Theodore, the western atrium which led into the church, and a series of subsidiary buildings. The middle platform stretched for more than 70 metres eastward and was about 12 metres above the street: it was connected with the upper level by two flights of stairs, and it contained a pillared court with a tank in the middle of it, which we designated the Fountain Court, and a second large church which, like our predecessors Schumacher and Guthe, we mistook at first for a colonnaded street. East of this middle platform there is a space of some 35 metres which led down to the street level. At present we have only cleared the buildings on the upper level and the fountain court, as the existence of the second church was not discovered until the close of the season's work, and it is with the upper buildings and the fountain court that this report deals.

In its plan the whole group is a brilliant illustration of the truth of one of Mr. Butler's observations, the skill, namely, of the Nabateans, as he calls the people in these parts, "in arranging masses and in accommodating buildings or groups of structures

to given sites."[1] It is also a very interesting illustration of a particular stage in the evolution of church buildings in the east, a stage which is described in a Syriac treatise which is known as the *Testamentum Nŏstri Domini Jesu Christi*. A Latin translation of this work was published at Mainz in 1899 by the Syrian Patriarch Ignatius Ephraem Rahmani, and the section which deals with church building is quoted by Kaufmann in his popular hand-book.[2]

§ IV.

The west atrium, with which we begin our description of the complex, was rhomboid in shape and measured over 21 metres from west to east, and about 50 metres from north to south. Three doorways[3] led originally from a street on the west into an entrance hall paved with mosaics, and three steps descended from this into an open court, surrounded formerly by covered colonnades on the north, east and south. The columns in these colonnades had Ionic capitals, and the floor was once paved with mosaics; the floor of the open court was partly cut in the rock, partly paved with larger slabs of stone. West of the court there were three rooms on each side of the entrance hall, and three more north of the north colonnade, the walls of the latter rooms being partly cut out of the living rock; two of the rooms south of the entrance contained patterned mosaics (Nos. 25 and 26).

On each side of the steps leading to the court there were two large niches, which may have been constructed as seats to be occupied by bishops or priests in a service for the absolution of penitents; one of them appears to have been converted subsequently into a water trough.

There were two subterranean tombs cut in the rock under the atrium; one of these, which was opposite to the south wall of the church, was cleared, and two chambers which had been made in Byzantine times were found in it, but they contained nothing of interest. The second is very much larger and was discovered too late in the season to be cleared.

According to the inscription at the doorway, this atrium was laid out by the "all-wise priest" (=Bishop ?) Aeneas in a place

[1] *Princeton Expedition*, 2 A, p. 6.

[2] *Handbuch der christlichen Archäologie*, Paderborn, 1922, p. 164.

[3] *Cf.* T.N.D.J.C.: "*Ecclesia itaque ita sit: habeat tres ingressus in typum Trinitatis.*"

formerly fouled by the carcases of dead animals ; this inscription is identical in style with that recording the dedication of S. Theodore's church, and the two buildings must therefore be contemporaneous. It will be observed that the doorways into the atrium are not aligned with those of the church, but there is the same irregularity in the spacing of the doors into the aisles of the church, and other examples of this are to be seen at Baalbek[1] and elsewhere. According to a new undated inscription found by us on one of the columns, the colonnade or stoa was erected by the Proedros Symmachus : the poor lettering would suggest that the stoa was later than other parts of the atrium, but the use of the phrase ΑΓΑΘΗ ΤΥΧΗ may indicate that the columns of the stoa were taken from an earlier pagan building : in this case the bad lettering would be the result of careless workmanship.[2]

The most northerly of the three doorways of the atrium was reduced in size at some later period, and the north side of the colonnade has been used as a stable, mangers being cut out of the rock at the west end of it ; there were several other signs of late occupation—cross-walls partly constructed of fallen columns, unbroken pots in earthenware and bronze, and a few early Arab coins ; such objects as are datable indicating that this part of the complex was inhabited down to the middle of the eighth century at least. The curious way in which the large stones forming the central doorway have fallen proves that the place was ruined by a violent earthquake.

§ V.

The church of S. Theodore was entered by three doorways from the east portico of the atrium. It had a nave and two aisles and ended in an apse which was externally polygonal ; the accumulation inside nowhere exceeded 2 metres in depth and was composed of building debris.

The walls were built with two faces, the outer one of hard limestone, the inner of the soft stone called *nāri* here, as in Jerusalem. The inner face was cased with panels of limestone, fastened with bronze hooks or cramps, much like those found at Baalbek,[3]

[1] *Baalbek*, Berlin, vol. ii, p. 131.
[2] *Q.S.*, 1928, p. 193.
[3] *Loc. cit.*, p. 141, fig. 197.

and divided from each other by marble spacers, like the marble casing round the innermost piers in the Dome of the Rock. The outer face was composed almost entirely of fragments from earlier buildings, good material but indifferently arranged, architectural mouldings with the mouldings turned inwards, sections of engaged columns used as stretchers with the round side inwards, inscriptions, and so forth. The floor was originally of slabs of different coloured stone and marble, laid in varied patterns, but it had been largely destroyed and only a few of the patterns could be reconstructed. The apse had been vaulted with stone, originally decorated with glass mosaics, but the roof over the body of the church must have been of timber covered with tiles, and from the complete absence of stone architraves we concluded that the architraves above the columns were also of wood. The columns, fourteen in number, with their Corinthian capitals, were all lying where they had fallen; not a single capital was missing, not a single drum had been removed, but not a single one was upon its base; in the west half of the church the columns had fallen inwards, across each other, but in the east half most of them had fallen to the north *after* the collapse of the side walls, both of which in this part had fallen to the south. Masons' marks on the sections of the column drums showed that these columns had been used previously for the same building as the engaged columns and certain other carved blocks which we found built into the side walls; the style of the Corinthian capitals suggests that this earlier building may have belonged to the beginning of the third century, and the lettering of the masons' marks appears to belong to the same period.

The church originally had twelve doors; all of these except three, which led into adjoining rooms or chapels, had moulded jambs, all of which, except one perhaps, had been taken from earlier buildings, as was the fine string-course which ran round the apse. Indeed, the only architectural moulding which seems to have been carved for the church originally is the moulding above the two inscriptions; this, though Byzantine in the flatness of the profile, is otherwise entirely classical in character. One of the doors, the most easterly on the north side, had been reduced in size, like the north door in the atrium, and subsequently blocked up, showing two phases in the decay of the building, but there was no sign that any part of the church proper had been re-used for a secular purpose.

A rare feature in the ground plan is the position of the two doors at the east end of the aisles in the place usually occupied by the pastophoria, the prothesis and the diaconicon; this is to be explained by the importance of the ceremonies in the fountain court below. The opening in the chancel screen leading to the ambo, from which the Gospel was read, is another rare, if not unique, feature, but its position is in complete accord with the prescriptions of the Testamentum Nostri Domini Jesu Christi.[1] The chancel screen, as is usual at this period, was a low one, and one of the small pillars, which divided the panels of which it was composed, is still lying broken under the column nearest the ambo; the fittings of the church were therefore probably intact when the columns fell.

On the north side of the church there are two buildings, the first (No. 29) a chapel at the west end, with a brilliant mosaic on the floor, which may have been built for the commemoration of benefactors. Chapels in the same position may be seen in the church of Bishop Paul at Jerash, and at Baalbek. The second (No. 30) is a long passage paved with mosaics laid in red and yellow diagonal squares, and leading east to the stairs going down into the fountain court: two doors opened from this passage into the church, and on the other side of the passage were various constructions belonging to some baths which had been built, according to an unpublished inscription, about forty years before our church. These constructions included a furnace which heated a hypocaust. The passage, like the corresponding one on the south side of the church, may have served as a narthex for catechumens and persons to be exorcised. "*Habeat ecclesia*," to quote the Testamentum, "*aedem catachumenorum quae sit etiam aedes exorcizandorum: neque dicta aedis separata sit ab ecclesia cum necesse sit, ut* (*catechumeni*) *eam ingredientes, et in ipsa stantes, audiant lectiones, cantica spiritualia et psalmos.*" This they could not have done if the narthex had

[1] The Testamentum reads:—"*Locus legendi lectiones extra altare parvum ab ipso distet*," on which the editor writes (p. 154), "*Notandum est discrimen inter Constitutiones et Testamentum quoad locum, ex quo ad populum sunt legendae sacrae scripturae. Cum enim Constitutiones apostolicae in media ecclesia collocant ambonem destinatum sacris lectionibus recitandis, auctor noster statuit locum lectionum esse debere paulisper extra altare.*" Kaufmann (*op. cit.*, p. 175) comments on the position of the ambo as an oriental trait—"*er entspricht dem κατάστρωμα der heutigen Syrer.*"

been at the west end. The two passages would be for men and women respectively.

To the south of the church there was a second passage (No. 5) parallel to the east portico of the atrium; the west wall of this passage was simply a continuation of the west wall of the church, carried on without a break or even a straight joint, and therefore built at the same time. This passage led from the main church to a smaller one (No. 3) at the south-west corner of the complex. This smaller church, which ended in an internal apse, had been paved with slabs of stone and marble, nearly all of which have disappeared, and the church walls, the southern one of which coincides with the south wall of the precinct, are set out in curious lines which are, perhaps, due to aesthetic considerations, like those which determined the planning of the forecourt leading to the great propylaea of the Artemis temple. There were remains of seats round the apse.

Between the two churches there were three rooms all communicating with each other, and with the passage east of the atrium; the central one (No. 7) was a baptistery with a built font for immersion at the east end, and steps on each side leading up from the two side chambers and down into the font. Above the font there were some curious constructions like bins with benches in them of a diminutive size, which conceivably may have been used in the ceremonies of anointment which accompanied baptism. I know of no parallel to them. The side chambers (Nos. 4 and 8), which may have served for the robing and disrobing of the candidates, men and women, were paved with patterned mosaics, the central room or baptistery with slabs which have almost all disappeared. In the most southerly of these (No. 4) the doorway at the west end had been blocked up and the north and east walls had been taken down, and the stones of which they were composed stacked in regular lines over the floor, with a packing between them and the mosaics, evidently to protect the latter. It looks as if some work of reconstruction was in progress just before the place was finally deserted, but perhaps after the earthquake. In the most northerly room (No. 8) there were about 6 inches of fine ashes above the mosaics, and above this layer about 250 roof-tiles were found, another probable indication of reconstruction works; some marble slabs which fit the chancel screen in the small north chapel (No. 29)

were also found in this room. Immediately east of this series of rooms there was a splendidly built cistern, filled perhaps originally from the church roof, from which the baptistery may have been supplied, and further still east the south narthex (?) (No. 31), from which admission was gained both to the church and to the south flight of steps into the fountain court, and some more rooms with patterned mosaic floors, to which we shall refer later.

Of all these rooms the most interesting is the baptistery; the plan shows that, like church No. 3, it was wider at the east end than the west, and that the central portion at the east end where the font was built was flanked by two diminutive niches or apses on the walls which screened the steps. I cannot suggest any ritual function for these niches, and it is possible that they were introduced for aesthetic reasons only, to relieve the otherwise blank walls in which they were placed. Rectangular baptisteries, it may be noted, are not uncommon in Syria; Butler mentions several in one of the Princeton volumes,[1] and the instructions in the Testamentum also imply a rectangular building. They are as follows:—"*Intra atrium sit aedes baptisterii, habens longitudinem viginti et unius cubitorum, ad praefigurandum numerum completum prophetarum, et latitudinem duodecim cubitorum pro adumbrandis iis qui constituti fuerunt ad praedicandum evangelium. Aditus sit unus; exitus vero sint tres.*" The internal width of our baptistery at the narrowest part is 5·70 metres, and the length from the inside of the west wall to the inside of the east wall above the font is 9·20 metres; 12 and 21 Roman cubits of 444 millimetres would be, respectively, 5·28 metres and 9·24 metres; the building is a cubit wider than the Testamentum prescribes, if the Roman cubit was the measure used, but the proportions are approximately correct.

The three rooms with mosaic floors behind the baptistery (Nos. 35, 36 and 37) will have to be identified with the building for the priests and deacons which is mentioned by the Testamentum: "*Aedes presbyterorum et diaconorum sit post baptisterium.*" The rooms in the atrium (Nos. 10B, 10, 13, 14, 17, 27, 26, 25 and 24) will provide the necessary accommodation for the bishop, the senior widows, the deaconesses and the strangers' hospice, which is prescribed by the Testamentum:—"*Aedes episcopi sit prope locum, qui vocatur atrium. Item ibidem sit sedes viduarum, quae dicuntur*

[1] II, B, pp. 179, 184, 197, 203, 207 and 252.

habentes praecedentiam sessionis . . . Diaconissae autem maneant apud portam domus dominicae. Habeat ecclesia in proximitate hospitium, in quo protodiaconus recipit peregrinos."

There are only three other buildings mentioned in the Testamentum for which we may reasonably suppose that provision was made at S. Theodore's. These are the diaconicon, the Locus Commemorationis causa and the Treasury. I propose to quote the relevant passages from the Testamentum, and to suggest identifications, but in default of inscriptions it is impossible to be certain.

The Diaconicon is mentioned immediately before the baptistery, and was evidently outside the church; neither in position nor in function was it at all like what is now called a diaconicon. The inscription runs as follows:—"*Diaconicon sit e regione dextera ingressus, qui a dextris est, ut Eucharistiae sive oblationes, quae offeruntur, possint cerni. Habeat diaconicon atrium cum porticu circumambiente.*" The place which corresponds best to this is the church or chapel at the south end of the atrium, No. 3. It is on the right hand of the entrance and had a forecourt of its own.

The Place of Commemoration is described much later:—"*Commemorationis causa aedificatur locus, in quo considens sacerdos cum protodiacono et lectoribus inscribat nomina eorum, qui offerunt oblationes, lector vel protodiaconus nominet illos in commemoratione, quam pro illis sacerdotes coetusque supplicantes faciunt.*" It is possible that the chapel at the north-west corner of the church (No. 29) is to be identified with this building, which is apparently distinct from the church itself.

The Treasury is mentioned after the Place of Commemoration:—"*χορβανᾶς et gazophylacium integrum sit prope diaconicon,*" and if we are right in identifying No. 3 with the diaconicon, the treasury might be identified with No. 4, though the close connection of this room with the baptistery would suggest that it was built primarily in connection with baptism. On the other hand, if the diaconicon could be placed on the north side of the atrium and identified with the chapel there (No. 29), the treasury might be identified with the room (No. 10B) in the north-east corner of the atrium, which has a doorway leading into No. 29. In another church at Jerash, the church east of the great propylaea, there is a circular room on the north side of the atrium which is described as a "diaconia" on the mosaic which covers the floor:

this mosaic also contains the first three verses of the 86th Psalm, which are quite appropriate to a building in which alms were made.

It is, however, as I have already said, impossible to identify all the subsidiary buildings with any confidence, but the number of them, like the provisions of the Testamentum, throws light on the manifold activities which centred round the church. S. Theodore's was not a monastic establishment, but it was much more than a mere house of worship, and the group of buildings we have described would appear at first sight to have been planned as a complete self-contained unity to provide for all the needs of an organized religious community. In actual fact this group of buildings was the last of a long series to which we must now turn. In the following section, accordingly, we shall descend from the platform on which S. Theodore's church stands to the second group of buildings in this series.

§ VI.

The Fountain Court, to which we now descend, is an open paved court, some 20 metres across, with a square tank in the middle. The pavement of the court is more than 5 metres lower than the floor of S. Theodore's, and the remains of the apse towering between two flights of steps still dominate the west side; on the opposite side a portico of six Corinthian columns opened into another church as long as S. Theodore's, and the whole court may be regarded as the atrium of this second church. On the north and south sides of the court there were lower colonnades with Ionic columns, that on the south being broken by a wall belonging to some building which still awaits investigation.

The fountain, after which we have named the court, is a square tank, more than $4\frac{1}{2}$ metres across and about 90 centimetres high, with a basin on the east side; the mouldings and little pilasters on its walls suggest that it is a work of the fourth century or even earlier, but in later days it had a heavy superstructure which we cannot with any certainty restore. The fountain was connected with the apse of S. Theodore's by two late arches, probably in the sixth century, and under these were low rails like those across the chancel of the church; a stone seat stood against the wall of the apse facing the fountain, and the whole space enclosed by the

rails was about 15 centimetres higher than the pavement of the court; the west side of the fountain was decorated with carved blocks from some coffered ceiling of the classical period. At some later date, in the seventh or eighth century, perhaps, the rails between the fountain and the apse were replaced by walls of the poorest masonry with steps on one side and a row of crude conical coping stones.

Three water channels radiated from, or to, the fountain under the paving stones of the court. The most important contained fine leaden pipes about 30 centimetres in diameter, which conducted water towards the centre of the tank from under the steps on the north side of the court, just below the first landing, beyond which there was a clumsy stone bowl of large dimensions through which the water must have poured. On the opposite side, at the south-west corner of the tank, there was an earthenware pipe which apparently carried the water off to the south. There was a third channel just below the paving, cut in the rock and unpiped; this started from the basin on the east side and ran towards the north-east corner, being joined on the way by a branch channel from the north side of the tank; this drain evidently carried off the overflow from the basin or basins. In addition to these, there was an open gutter running all round the court, which was graded to carry off the water in the north half of the court towards the north-east, and the water in the south half towards the south-west corner, from which it may have flowed into some cistern that has not been yet located.

We have mentioned the fountain and the water system first, but in its present state the most striking features in the court are the two flights of steps which lead up to the level of S. Theodore's. In the north-east corner there are 21 steps leading in two stages to a landing from which two short flights originally branched, one, now broken, going south to a platform in front of the door at the east end of the north aisle, the other still running straight on to the passage along the north wall of the church which we have identified with the northern narthex. In the south-west corner the plan was rather different, the steps were more regular and steeper, and here 15 steps only led up to a second landing, from which two short flights once branched, as on the north side. The two flights vary in arrangement and in execution, the southern one being much

the better in style ; they are probably the work of different hands, but they balance admirably one against the other, and the discovery was as welcome as it was unexpected, for not one step was visible when our work began, nor was the existence of these flights suspected.

It seems to us, however, probable that, spectacular as they are, these flights were an afterthought on the part of the architect. The church proper, the apse, that is, and the two side aisles, lie between the two main flights of stairs which lead straight to the passages alongside the church, and it is the walls which carry the church, plus the side " narthex " passages which form the west boundary of the court. Now the two lower walls under the church, north and south of the apse, are pierced each by two doors on the level of the court, one on each side under the vaults formed by the stairs leading to the narthexes, and on each side between the stairs and the apse, immediately under the two aisles, and these four doors now lead nowhere. At first we thought they might lead to a very early crypt under the east end of the church, but shafts which we sank from the floor above prove that no such crypt ever existed, and that one of these doors at least never led anywhere. We can only explain their presence on the assumption that the architect intended to build steps under the aisles and passages, and subsequently changed his mind and built external flights of steps instead. This would explain also some other difficulties in the existing arrangements ; the flight of steps on the north side cuts right into the base of one of the pillars in the colonnade, and on both sides the steps at the top cut into the middle of a course of the church wall, which was evidently laid before they were planned. Furthermore, the existing arrangement involved spanning the space between the stairs and the apse in order to provide an approach to the doors at the east end of the aisles ; it was necessary therefore to provide supports for beams to span this space, and these supports were in fact provided by cutting " put-log " holes in the existing wall, a procedure which would never have been adopted in place of the normal brackets or corbels if the wall had not been constructed before this necessity arose. These difficulties disappear if we assume that the plan was changed just after the east wall of the church had been carried up to the level of the floor.

The plan ultimately adopted provided a long room in each corner at the west end of the court north and south of the apse which projected beyond them, and the contents of these lower rooms, especially of the parts nearest the apse, proved of considerable interest. On the top we found a stratum of heavy stones from the upper wall of the church and the door-jambs; below these were blocks from the steps; under these a number of timber beams, joists both rough and squared, in a surprisingly good state of preservation: those identified were of juniper or cypress, perhaps *cupressus sempervirens*.[1] Below this last stratum there was on the north side an enormous quantity of broken glass and ashes, much of the former apparently stored in stone pigeon-holes which had been erected against the apse wall; among this broken glass the bottoms of some 300 glass lamps were identified, belonging mainly to two types which have survived in mosques and churches to the present day.[2]

The fountain court has had a long history, but it is only the later stages of this history, before the final destruction and desertion, that we can hope to recover. It existed in its present form before S. Theodore's apse was built, for in some places the paving stones underlie the bottom course of the apse and in other places they have been broken to make way for it. How much earlier was the court? In two of the pits which we sank under the floor at the east end of the church we found fragments of pottery which go back to the Hellenistic period, but these may have been carried from a distance when the platform on which the church stands was filled in. In the pit under the apse we found a small patch of Roman mosaic still in position on the level of the court, about $5\frac{1}{2}$ metres below the church floor; this mosaic probably goes back to the second or third century A.D., and the rock on which the paving stones of the court stand must therefore have been levelled by the third century at least. The paving stones may have been laid in the

[1] For the identification I am indebted to the Director of the Royal Botanic Gardens at Kew, to whom the Director of Agriculture and Forests in Palestine kindly sent specimens of the timber.

[2] "*Sint omnia loca illuminata*"—to quote the Testamentum again—"*tum propter figuram tum propter lectionem*," on which the editor appropriately refers to S. Jerome:—"*Per totas ecclesias orientis, quando legendum est evangelium, accenduntur luminaria iam sole rutilante, non utique ad fugandas tenebras, sed ad signum laetitiae demonstrandum.*"

third or fourth century ; we found two re-used stones among them —one an inscription, the other a piece of moulding like that used in the string-course round the apse. The Corinthian portico at the east end might perhaps be assigned to the fourth century, but on this it would be well to reserve judgment until the church to which it leads has been excavated. The Ionic columns on the north and south sides have masons' marks which are quite different in character from those on the drums of the Corinthian columns in the church ; the form of the letters used indicates a much later date ; it resembles that of the letters on the Ionic columns in the "forum" and, less closely, that of the letters on the Theodore inscription ; these colonnades therefore may be tentatively assigned to the latter decades of the fifth century A.D. The debris which we cleared away contained masses of worked stones, including several fine fluted columns to which we could assign no place in the later disposition of the court ; what it was like therefore in pre-Christian days we can hardly hope to recover.

At the east end of the fountain court there was a second church which was only discovered late in the season, and we had not time to do more than clear the west front and make soundings inside at the south-west corner and at the east end. From west to east this church measured over 40 metres in length and ended in an internal apse. The masonry was much better than in S. Theodore's, but here, too, it was composed of re-used materials, and a course of huge stones nearly a metre square had originally been built above three smaller courses at the west end, just as is the case in the west front of S. Theodore's between the central and the southern doorways. One architrave and three of the Corinthian columns on the south side of the nave are still standing. The floor was paved with slabs of stone. The door-jambs at the west end were moulded ; in those of the central doorway one stone had been fully carved and the others only blocked out ; in the southern doorway all the stones had old mouldings carved on them and some of them, as a double set of masons' marks showed, had been already re-used once at least before they were placed in their present position.

At the east end, where the masonry is very finely jointed, the outer face is bulging dangerously outwards, and it may be necessary to re-set the stones before the wall is cleared. In the debris below it

there are several finely carved blocks, and there can be no doubt that this eastern church is earlier than S. Theodore's ; how much earlier we shall hope to find out when work is resumed upon the site.

§ VII.

We have now uncovered rather more than half the total complex of buildings on our site. The upper section and the fountain court have been practically completed, but the upper section is the latest in date, and we cannot unravel to our satisfaction the historical significance of the whole group until the earlier parts have been excavated. Enough, however, has been found to suggest that our site may be the site of the miracle to which Epiphanius refers. Epiphanius mentions a spring in Gerasa in the Martyrium at which water was turned into wine on the anniversary of the miracle at Cana in Galilee, which was also the anniversary of the Epiphany. To the best of my knowledge Gerasa could boast of no other special distinction in the Christian period, and it would be reasonable to suppose that the site of this miracle was the site of the greatest Christian buildings in the town. Our buildings occupy one of the finest situations in the place, close to the Temple of Artemis, which had been the chief temple in pagan days, and just south and west of the Nymphaeum, which, like most nymphaea, was no doubt a sanctuary as well as a place of public utility. It would be very natural for the Christians to organize a sort of miracle-play on such a spot, where they could tap water from the channel which had previously carried it to the Nymphaeum and provide a Christian substitute for the time-honoured pagan festival.

It is, of course, impossible to *prove* that this was the site of Epiphanius' miracle, and it is conceivable that the site should be looked for elsewhere at Jerash, perhaps at the so-called Maiuma outside the town, but it is difficult otherwise to account for the great size of our complex. The fountain court is the middle of the complex ; there are two large churches, to the east and west of it respectively, and a number of subsidiary buildings. The whole group reminds one of great pilgrimage centres elsewhere in the east, of S. Menas in Egypt, and of S. Simon Stylites in Northern Syria, even of the Holy Sepulchre in Jerusalem. It is surely tempting to connect it with the one claim to religious distinction which Christian Gerasa possessed.

BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM.

The Eighth Annual General Meeting of Subscribers was held on Friday, October 26th, 1928, at the Rooms of the Society of Antiquaries, Burlington House, Piccadilly, W.1, when Field-Marshal the Right Hon. Lord Plumer of Messines, G.C.B., G.C.M.G., G.C.V.O., G.B.E., late High Commissioner in Palestine, presided, and the School's Excavation at Jerash (Gerasa) was described (in the absence of the Director) by Professor J. L. Myres.

The Minutes of the last Annual Meeting were taken as read, and signed.

Mr. Robert Mond (Hon. Treasurer) moved the adoption of the Accounts. The balance brought forward at the beginning of the year was £115 13*s.* 1*d.* Owing to a peculiar combination of circumstances, two Government grants had been received during the financial period under review. Subscriptions and donations received in England came to £587 6*s.* 8*d.*, and £35 had been received in Jerusalem. Income from all sources had amounted to £1,867 6*s.* 2*d.* Expenditure was about £1,500, so that there was less than £500 now in hand. It would be necessary to raise another £1,000 during the ensuing year. This meant that subscriptions would have to be practically doubled. As the Chairman would tell the Meeting, the School was doing remarkably well, the theatre of activity being large and extended, while there were a larger number of students than ever before and much greater interest in the work. It was becoming more and more essential that the School should assert its position in Palestine, and every effort should be made by all members of the School to ensure the necessary income. The funds were being well and wisely spent and better results obtained than ever before.

Professor J. L. Myres (Chairman of Council), in seconding, pointed out that payments in regard to the London office amounted to £84; expenses in connection with the School in Jerusalem to about £300; and the Director's salary was £600. Those figures were an irreducible minimum; indeed, more ought to have been spent on the Library, on equipment, photography, travel, and survey work. That during the past twelve months two Government grants had been received was small consolation for the fact that no more Government grants would be made, the Treasury having decided, in spite of strong representations from various quarters, that the School must subsist on voluntary subscriptions only. Thus, as the Treasurer had said, it would be necessary in future to raise annually £1,000 to keep the School going. The balance carried forward included several large donations for special purposes, not available for general maintenance; £41 for research on the prehistoric caves; £10 in aid of Mr. Chitty's work on sites in the Wilderness of Judaea, and £100 for work at Jerash.

The Report, which had been circulated to members present, was taken as read.

The Chairman, in moving its adoption, said: "When I accepted the invitation of the Committee to come here this afternoon and move the adoption of the Report, I explained that I had no technical knowledge of archaeology, but accepted because it gave me the opportunity of saying a word or two of commendation in view of the experience which I have had during the past three years when holding the appointment of High Commissioner in Palestine.

"First of all, I should like to assure all subscribers that nothing could exceed the zeal and energy which the Director, Mr. Crowfoot, and all those whose names are mentioned in the Report and who work under him, showed in carrying out the work entrusted to them, often under difficult climatic conditions and under circumstances which were not altogether always favourable. I never met a body of men and women who took more trouble—so much pains—and devoted themselves so keenly and energetically to the work as those employed under Mr. Crowfoot at the British School of Archaeology in Jerusalem. (Applause.)

"The next point I want to impress is that in my experience—and I am sure it will be the experience of my successor—the work

of the British School of Archaeology is a distinct asset to the British administration in that country of Palestine. (Hear, hear.) As you all know, other nations have various parties working in different parts of the country, and it would be nothing short of a calamity if the British who, after all, are responsible for the administration of the country, dropped out of what is almost, one may say, a race amongst them. The magnificent gift of the American millionaire, Mr. Rockefeller, of the Museum for Jerusalem—as you all know, he has given the gigantic sum of £400,000, of which £200,000 is to be devoted to the building and equipment of the Museum and £200,000 to its endowment—ensures its maintenance, without any call on the Palestine taxpayer, in perpetuity; and that Museum, which is just about to be built, will undoubtedly attract a very large number of scientific men, archaeologists, historians and others from all parts of the world. There, again, we should feel ashamed if, amongst all the nationalities represented in connection with the work of archaeology in that country, there was nothing like a British School. It all depends, as the Treasurer and Professor Myres, the Chairman of Council, pointed out, on the funds that are made available, and I should like to say one or two words about that.

"It is quite true that up till last year the British Government gave a subsidy of £500 a year towards the School, but for the last two years, as I happen to know from personal experience, they did so with extreme reluctance. The last letter which I received on the subject, as High Commissioner, made it perfectly obvious that it was quite hopeless to expect that that grant would be continued. I say that, because it has always been a tendency on these occasions to say, 'Why not ask the Government? Why should not the Government do this?' I think my successor, if he tries, will not be able to obtain a continuance of that grant. As regards the Palestine Government, it would be extremely wrong to attempt to force upon the Palestinian taxpayers as a whole any grant for a purpose which was labelled for British subjects and for British subjects only. (Hear, hear.) Therefore we must do our best—and I say 'we' deliberately, because, although I have ceased to hold the office of High Commissioner, I shall certainly not cease to take interest in the British School of Archaeology. (Applause.) I say, therefore, that it is essential for one and all of us to buckle to, and do our

best to ensure that there shall be an assured income to carry on the work of the School.

"Professor Myres has pointed out that it is not difficult to obtain money devoted to a specific purpose from those interested in a particular locality in some part of the country, but that will, of course, not keep the School going. There must be, behind that, an assured income which will make certain that you will have your Director and staff; and as the work progresses, increases, and develops, it will be perfectly certain that that staff ought to be enlarged. The work must not be allowed to lapse. Therefore I think all of us must make up our minds that we can do a good deal to obtain from the various sources in the different localities and organizations with which we are connected an assurance that for the next five years, or whatever it may be, the British School of Archaeology will have at hand a sum of money sufficient to render it certain that it can carry on the work which, as I can assure you once more, is very important from the point of view of British prestige in Palestine. I beg to move the adoption of the Report."

Sir John Chancellor: I confess it was a great surprise to me when Professor Myres approached me and asked me to second the adoption of this Report. I have been a Vice-President of this body for two whole days, and I have never been in Palestine, so I know, at present, nothing of your activities in regard to archaeology and research there. My ambition is to follow in Lord Plumer's footsteps there, and I can assure you of my warm support and sympathy in all the work of the Council when I get to Palestine. It would be vain and foolish of me to make any comment now upon your Report, because, as I say, I know nothing of your work. Therefore I confine myself to wishing the School and its work the greatest success in the future and, with your permission, Sir, I second the adoption of the Report.

The Report was unanimously adopted.

The Chairman, in moving the re-election of the Council and Officers, as printed in the Report, took the opportunity of saying what great satisfaction it was to the Council that Sir John Chancellor, the new High Commissioner for Palestine, had been so good as to accept the office of Vice-President.

The Council and Officers were unanimously re-elected.

Professor J. L. Myres : Lord Plumer, Ladies and Gentlemen,— Let me begin by expressing our great regret, and his great regret, that our Director, Mr. Crowfoot, is unable to be with us this afternoon to give his own account of the principal operations of the School during this year. After a very short holiday in the summer he had to return to Palestine, and he is, as you all know, now engaged in conducting the excavations of the Palestine Exploration Fund at the Ophel site in Jerusalem. He asked me particularly to express his regret that he was not able to come and meet the subscribers and render his account in person.

The excavation at Jerash is only one of several pieces of original scientific work which it has been the good fortune of the School to put through in this season. We have had Miss Dorothy Garrod excavating the very important cave in the neighbourhood of Lydda, the Shukbah Cave, and her account of the palaeolithic deposits in that cave, including some exceedingly interesting human remains now under examination, has been published in the October, 1928, number of the *Quarterly Statement* of the Palestine Exploration Fund.

Then, Mr. Chitty, who I am glad to say is here to-day, together with Mr. and Mrs. Jones, has partially excavated the monastery of Saint Euthymius at Khan el-Ahmar, a few miles from Jerusalem, and you see on the walls here some of the records of their work in the field. There is a ground plan of the church and monastery and the tomb of the saint, and a drawing of one of the inlaid marble and panelled floors of the church. Mr. Chitty has asked me to explain that the brilliant colouring is due to the enthusiasm of the draughtsman, Mr. Marcoff; it does not express exactly what you see if you look at the floor, and will, no doubt, have to be toned down before publication. You will also see two sadly damaged fragments of frescoes, a number of intricate and very careful drawings of the beautiful and most interesting mosaics which adorn the floors of the church ; those we owe to Mrs. Jones, and I think we ought to express our thanks and admiration of this contribution. (Applause.)

Now I come to what is our principal subject for consideration to-day.

(The Director's summary of excavation at Jerash is printed separately as an independent article on pp. 17 *sqq.*)

The Chairman: Ladies and Gentlemen,—I am sure you wish me to express, on your behalf, our gratitude to Professor Myres for having read such an extraordinarily interesting paper, and I am sure you would also wish me to ask him to convey to the Director, Mr. Crowfoot, and all those who work under him, the interest with which we have listened to his report and our appreciation of the work of which that report is a record.

The vote of thanks having been accorded, amid hearty applause,

Dr. E. W. G. Masterman said: Ladies and Gentlemen,—As the hour is late, I will be very brief, but I do not think you would like to leave without an expression of your thanks for the presence of our Chairman this afternoon and for all the kind words he has said. (Applause.) I therefore move, on your behalf, a vote of thanks to Lord Plumer, and we rejoice to know that he has not only been interested in our work during his time in Palestine, but, as he assures us, he will continue to take an interest in it.

The vote of thanks was heartily accorded, and also thanks to the Society of Antiquaries for the use of the room in which the meeting was held.

The Chairman: I will not detain you long, but thank you very much indeed for the expression you have given of thanks to me for coming to preside this afternoon. It has been a great pleasure to meet you all. I am quite certain that all who help to keep the British School of Archaeology in Jerusalem and Palestine on its legs and able to increase its activities, will be rendering national and imperial service. (Applause.)

Report for the Season, 1927–28.

The Council has to report a year of substantial progress and unusual activity.

The Director returned from his holiday to Jerusalem on February 16, 1928; he visited the Shukbah Cave near Lydda and arranged for its excavation by Miss D. A. E. Garrod on behalf of the School. After a preliminary visit to Jerash at the end of March, with Mr. J. B. Robertson, the Two Brothers Fellow of Yale University, he began regular excavation there on April 9, on the site of the Church of Saint Theodore. At Jerash he was joined by Mrs. Crowfoot and Miss Dorothy Crowfoot, who remained in camp throughout the season: the former managing the camp, accounts, red-cross work, and object-register; the latter cleaning coins and metal objects, and executing careful large-scale copies of the mosaics. On April 17 arrived Mr. and Mrs. Jones and Lieut.-Commander A. G. Buchanan, students of the School. Except for breaks at Easter and Bairam, excavation went on continuously from March 27 to June 7; the Church of Saint Theodore and the atrium west of it were cleared, and also a colonnaded fountain-court with staircases, east of it, the scene of the traditional marvel of water turned into wine on the anniversary of the miracle at Cana. A detailed account of this season's work at Jerash is included in the *Quarterly Statement* of the Palestine Exploration Fund for January, 1929.

This excavation was undertaken jointly by the School and Yale University, and it is agreed to resume it in the spring of 1929 on the same basis. The cost has been defrayed as to five-sixths from funds raised on behalf of Yale, and as to one-sixth by donations to the School from the Craven Fund of the University of Oxford, the Schweich Fund of the British Academy, the Byzantine Research Fund, and Mr. Henry J. Patten of Chicago, a Foundation Member of the School. To all these the Council expresses its most hearty thanks.

In June and July, besides work in Jerusalem consequent on excavations at Jerash, and at Ophel in the preceding autumn, the Director was obliged to superintend the removal of the Library to fresh quarters at the top of the house, the room hitherto occupied being required for the work of the Department of Antiquities.

The opportunity was taken to repair the bookcases, to make a new catalogue, and to insure the books and furniture.

Late in July the Director returned to England on leave. In August he represented the School at the International Oriental Congress in Oxford, and gave an illustrated account of the work at Jerash. Early in September he returned to Palestine, and has since been engaged in directing the Palestine Exploration Fund's excavation in the Tyropoeon Valley at Jerusalem, with the assistance of Mr. C. N. Johns, Librarian of the School, and Dr. E. L. Sukenik, Head of the Archaeological Section of the Hebrew University.

Staff.—Mr. G. M. FitzGerald, Assistant-Director, who had been in charge of the School during the Director's absence on leave, left Jerusalem on February 21 for England, and has since been engaged in preparing for publication the pottery and other objects from the Palestine Exploration Fund's excavation in 1927 and his previous work at Beisān. To the general regret, he has been unable to return to the School this year. The Council desires to record its appreciation of Mr. FitzGerald's long services to the School as Student and Assistant-Director. His experience of excavation at Beisān, Ur, and elsewhere, and his wide knowledge of Palestine, have been placed without reserve at the disposal of colleagues and visitors; and on two occasions he has been in sole charge of the School for several months.

Mr. C. N. Johns, a member of the staff of St. George's College in Jerusalem, was appointed Student-Librarian on February 1, in place of Miss Levy, whose resignation (reported last year) was received with regret. He has given valuable help, especially during the removal of the Library, and has made what is practically a new catalogue. He is now taking part in the Tyropoeon excavation.

Students of the School have been admitted or readmitted this season as follows :—

Mr. W. J. Hine, B.A. (Exeter College, Oxford), is still engaged in the American excavation of Beisān under Dr. Alan Rowe.

The Rev. D. J. Chitty, B.A. (New College, Oxford), who explored in 1927 the cave church of Saint Theoctistus at Deir el-Mukelik, has published his discoveries of fresco and mosaic in the *Quarterly Statement* for July, 1928. Ordained Deacon at Trinity, he returned

to Palestine in June. With grants from New College, Oxford, and from the Denyer and Johnson Fund of the University, and some private subscriptions, and with the assistance of Mr. and Mrs. Jones (*v.* below), Mr. Michael Marcoff of Jerusalem and his mother Madame Marcoff, he explored and partially excavated the monastery of Saint Euthymius at Khan el-Ahmar, a few miles from Jerusalem, recovering the plan and structure of the church, the tomb-chapel of the Saint, important mosaics and marble pavements, and fragments of fresco. If funds can be raised he hopes to complete the excavation next season. In August and September he explored with Mr. Marcoff the *laura* of Saint Firmin in the Wady Suweinit, and the Monasteries of the Jordan Plain, and sailed for England on September 19. A preliminary account of this season's work at Khan el-Ahmar is in the *Quarterly Statement* for October, 1928.

Lieut.-Commander A. G. Buchanan, R.N. (retired), arrived in Palestine early in April and left on June 24. He took part in excavation at Jerash, and made the plans and measured drawings.

Mr. A. H. M. Jones, B.A. (Fellow of All Souls College, Oxford), and Mrs. Jones, B.A. (Somerville College), arrived early in April; took part in excavation at Jerash, then joined Mr. Chitty at Khan el-Ahmar, and returned home in August. Mr. Jones also copied inscriptions on other parts of the site of Jerash, which he published in the *Quarterly Statement* for October, 1928; and he acted as a Sectional Secretary to the International Oriental Congress at Oxford.

Miss D. A. E. Garrod, M.A. (Oxford), arrived in Palestine from Iraq in February, and excavated the Shukbah Cave near Lydda which yielded stratified remains of Mousterian, Aurignacian, and microlithic cultures, with some human bones. She left Palestine at the end of June, and gave an account of her work to the British Association at Glasgow in September. In September she returned to Iraq, where she is to excavate early cave-sites; and she proposes to resume work at Shukbah in the spring of 1929. A summary of her results appears in the *Quarterly Statement* for October, 1928. For the funds for this excavation the School is indebted to the generosity of Lord Astor, Mr. H. Osborne O'Hagan, and especially to Mr. Robert Mond.

Mr. George Woodbury and Mrs. Woodbury, members of the American School of Prehistoric Studies, took part in the excavation of the Shukbah Cave.

It is evident from this list of students and researchers that the British School of Archaeology in Jerusalem is performing a public service of real significance ; and that it has been able also to raise for their special investigations the small amounts absolutely necessary.

Finance.—But while the field-work of the School has been maintained on this modest scale, it is only with the greatest difficulty that the general income of the School itself can be assured. The Government Grant, as reported last year, has not been renewed, and the School now depends wholly on voluntary subscriptions. A special appeal, widely circulated in the course of the present season, brought generous contributions from the Merchant Taylors Company ; from All Souls, Brasenose, Christ Church, Magdalen, and Merton Colleges at Oxford ; a donation from the Society of Antiquaries ; and a few fresh annual and life members. But several old subscribers have died, and it is only by the enrolment of many new ones that the School can be kept in existence.

Irreducible charges are the salaries of the Director and Librarian in Jerusalem, and the Assistant Secretary in London ; and the rent, rates, and necessary upkeep of the School premises. Expenditure on postage, printing, and stationery, and unfortunately also on the Library, are kept at the lowest point consistent with efficiency. Tents, camp equipment, and excavation-tools are being bought from the special research funds as they are needed ; photography also falls at present wholly on the special accounts.

By agreement with the Palestine Exploration Fund, the sum of £200 is received in consideration of services rendered by the Director and Staff of the School in the conduct of the Fund's excavations ; and the current reports of the School's operations and its students' researches are published in the *Quarterly Statement* and sent to all subscribers to the School. For eventual definitive publication of Memoirs on the work at Jerash and Shukbah, arrangements are being made respectively with Yale University and the American School of Prehistoric Studies.

Programme for the Season 1928–29.—The following researches are projected, in continuation of the present season's work :—

(1) The Director has been engaged since the middle of September in directing the excavations of the Palestine

Exploration Fund in the Tyropoeon Valley, on ground adjacent to that explored in 1927. This work may be expected to continue until the spring of 1929.

(2) As soon as the season is sufficiently advanced, work will be resumed at Jerash, in conjunction with Yale University as before, and it is hoped with the co-operation of one or more Yale research-students.

(3) Miss Garrod hopes to resume work at the Shukbah Cave as soon as she returns from her winter work in Iraq. This excavation will be maintained partly by the American School of Prehistoric Studies (which will probably send one or more of its members to co-operate) and partly by a special donation from Mr. Robert Mond.

(4) The Rev. D. J. Chitty has been invited by the Department of Antiquities in Palestine to complete the clearance of the tomb of Saint Euthymius and adjacent monastery-buildings at Khan el-Ahmar, but funds for this work are still to seek.

(5) The University of Glasgow proposes to send a student as on a former occasion, but his course of study or research is not yet defined.

It hardly needs to be emphasized that these are but few among the prospects of exploration and discovery which would be open to the School if it were more liberally supported at home. Palestine still yields valuable and significant evidence for sacred and profane history alike, almost wherever the surface is broken. It is a "promised land" to scientific research to-day, as to its invaders in antiquity, and to pilgrims in mediaeval times, and it is a region for whose recovery to civilization our own country has been made responsible to all nations. It will be a disgrace as well as a disaster if British scholarship and research fail to take their share in this enterprise of exploration.

THE SINAI SCRIPT AND ORIGIN OF THE ALPHABET.[1]

By Alan H. Gardiner, D.Litt.

The recovery of the Sinaitic inscriptions by Professors Kirsopp Lake and Blake, and their removal from Serâbît el-Khâdim to the Cairo Museum, have given a fresh impetus to the study of these intriguing documents. Several distinguished Semitists have recently visited Cairo for the express purpose of studying them, and some much-improved copies, together with the *editio princeps* of three new inscriptions discovered by the Harvard professors, have lately been published by Professor Butin. If I, who can claim no real competence in the Semitic field, intervene in the discussion once again, it is because I, too, have new copies to submit to this Congress. These copies have been made for me by Miss Calverley, to whose wonderfully acute vision and great accuracy I most cordially testify. She has determined several signs which others had misinterpreted, but, as she would be the first to admit, the margin for error remains unpleasantly large. The much weathered condition of the stelae and their friable material makes the production of wholly satisfactory copies a complete impossibility. It is not too much to say that, even if these inscriptions were carved in a well-known script and couched in the vocabulary of a well-known language, their present condition would still render interpretation extremely difficult.

It was at the Manchester meeting of the British Association in 1915 that I first propounded my theory of the origin of our alphabet, seeking to find in these very inscriptions an early stage in its development. According to this theory, the Sinai script both bore on its face clear evidence of its derivation from the Egyptian hieroglyphs, and at the same time represented the Graeco-Phoenician alphabet in a stage when the individual characters still showed a close resemblance to the objects signified by their Semitic letter-names. It will, perhaps, not be out of place to relate how this hypothesis came to frame itself in my mind.

[1] A paper read before the International Orientalist Congress at Oxford, August 29, 1928.

I had been working over the hieroglyphic inscriptions from Sinai in collaboration with my friend Professor Peet. When the Egyptian material was approaching exhaustion, we turned with some reluctance to these unpromising fragments in an unknown script. Their kinship to the Egyptian hieroglyphs was patent enough, but it was equally clear that they could not be interpreted as any form of Egyptian writing. The small number of signs strongly suggested an alphabet, but, if so, this would necessarily be the earliest known alphabet, for the absolute *terminus ad quem* indicated by the archaeological evidence was the XXth Dynasty, and the probabilities pointed to the XVIIIth or even to the XIIth. As we examined the copies of these inscriptions which Professor Petrie's collaborators had made on the site, my attention was particularly attracted to the ox-head, , in No. 349 and elsewhere. Surely this must be *aleph*, I exclaimed to my colleague, who naturally thought the suggestion a rather daring one. It was not until some weeks later that I found time to examine the problem more closely. It needed but little looking to discover perfect pictures of the objects signified by the letter-names or , *bēt* (house); , *mīm* (water); , *'ayin* (eye); , *rēsh* (head); and , *tāw* (cross, mark). There were further signs which could be reasonably equated with , *yodh* (hand), and , *nāḥāsh* (snake)—this last letter-name being preserved in Ethiopic as an alternative for *nūn*. I now cast around for some recurrent group of signs which might spell some word. One particular group of four letters stood out with great prominence, occurring in no less than 6 out of the 11 inscriptions. For the first, second, and fourth letters I could at once read *bēth*, *'ayin*, and *tāw*. To elicit the value of the third letter, I had to consult the Phoenician alphabet, which at that time, I will confess, was none too clear in my memory. The object depicted was obscure, but on grounds of shape this letter seemed to demand identification as *lāmedh* Phoenician). It is true that the Sinaitic form appeared to represent the letter as standing upon its head, but the comparison of Greek and Latin showed that the character for L did in fact possess this acrobatic peculiarity. Combining the four letters I now read Ba'alat. With amazement I recollected that the Semitic

goddess of Byblos was called Baaltis in Greek, but Hathor in Egyptian. Hundreds of hieroglyphic inscriptions at Serâbît el-Khâdim mentioned "Hathor, lady of the Turquoise." Surely it could not be a mere coincidence that the acrophonic principle, when applied to the Semitic letter-names in conjunction with the Sinaitic fragments, yielded precisely the right Semitic equivalent for the goddess Hathor! If I had asked myself what word I should most like to have read out of these votive tablets in the new script, the answer would have necessarily been "Hathor," or the Semitic equivalent thereof. That very name had come to me unsought as the result of my reasoning on the basis of the letter-names. What better evidence could there be that my reasoning from the letter-names was sound, and that I had actually found the solution to the well-worn problem of the alphabet?

It is with no mere autobiographic purpose that I have recounted the way in which the name Ba'alat was come by. That this name presented itself unexpectedly and spontaneously seems to me good circumstantial evidence of the rightness of my theory. I must here animadvert on the extraordinary position taken up by those critics, for such exist, who either admit the reading Ba'alat while denying that the Sinai script is the origin, or *an* origin, of our alphabet, or else favour my theory and yet have qualms about Ba'alat. To me it seems self-evident that the two propositions are too intimately connected for one of them to be accepted and the other denied. If you admit Ba'alat, you are also practically forced to admit the grounds upon which that reading was based. If, on the other hand, you accept the view that the Sinaitic signs represent the objects signified by the Semitic letter-names, and do so by virtue of the acrophonic principle, then the reading Ba'alat becomes necessary and certain. It seems to me that failure to recognize the rigidity of the system underlying my theory has vitiated a good deal of the critisism that has been directed against it.

I have some sympathy, though I do not agree, with standpoints like that now held by Professor Bauer, who, if I understand him aright, admits the bare possibility of all my combinations, but considers the evidence insufficient as yet to justify any definite conclusion. I have no sympathy at all with those other scholars, who simply turn their backs upon the Sinaitic testimony, and advocate their own theories of an origin of the alphabet regardless

of it. The latest discussion of the topic that has come before me is that by Professor Jensen in the August number of the *Orientalistische Literaturzeitung*. He is favourably disposed towards the views held by Sethe and myself, but perhaps attaches too little importance to the reading Ba'alat, the one outstanding factor which rests on convergent lines of evidence. I cannot agree with Jensen when he advocates a Cretan origin for some letters not readily explained by the Sinaitic fragments: this argument appears to me a classical case of *ignotum per ignotius*. It also seems to me that he deals with Professor Grimme too kindly, though my comparative ignorance of Semitic dialects and epigraphy possibly prevents me from discerning whatever may be sound in the last-named scholar's researches.

Having dealt with those students who reject my theory entirely, or accept it only in part, I now come to the more delicate task of criticizing the work of those who are in whole-hearted agreement with my contribution, and have attempted to develop it further. First of all, let me express my unbounded admiration of Sethe's first essay on the origin of the alphabet. Practically at the same moment when I was attempting to decipher the Sinai script, he was writing the brilliant essay in which, on purely deductive grounds, he arrived at almost identically the same conclusions with regard to the origin of the Graeco-Phoenician alphabet. As a feat of erudition and logic combined I doubt whether any more wonderful achievement has ever been accomplished within our limited field of study. Sethe's second essay, in which he both joyfully and generously welcomed my article in the *Journal of Egyptian Archaeology*, as corroborating his own results, contains a large number of penetrating suggestions and conjectures. He is almost certainly right in identifying the Sinaitic form of *hē* and the south-Semitic form of *dāleth*. I have no time to discuss, or even to mention, the various excellent proposals with regard to individual signs due to him and to others who have written on the subject. But I feel bound to add one qualification to my admiration, namely, that it is only along the lines of interpretation of the Sinaitic inscriptions as a whole that certainty on these points can be obtained. So many mistakes have been made in the past by exclusive attention to the forms of letters, or by inferences from the letter-names, that judgment must necessarily remain in suspense until conclusions of the

kind have undergone the acid-test provided by translation. How far has it proved possible to produce acceptable translations of the Sinaitic inscriptions ?

In seeking to answer this last question I am out of my depth, and know it only too well. Still, spectators are admittedly often those who see most of the game, and a few tentative remarks on my part will perhaps be pardoned. Professor Butin has conveniently printed together with his own renderings those proposed by his predecessors, and the perusal of them is not encouraging. Take the statue in the Cairo Museum (No. 436), the best-preserved of all the Sinaitic inscriptions. Butin's translation is as follows : " This [statue is set up] for the withdrawal of the raider, according to the wish of the handmaid of Ba'alat, (and) according to the head stone-setter." Eisler's rendering of the same reads thus in English : " This is for the protection of the pasture according to the pleasure of an oracle—for Ba'alat ; according to the pleasure of the overseer of the overseers." Here is Grimme's attempt : " For Ba'alat ; for the increase of her pasture ; for the welfare of the flocks ; for the welfare of Manašše, chief of the stone-workers on ?–*n*–*j*." I wish to put a direct question to those of my audience who are familiar with the inscriptions on Oriental statues. Is there one among you to whom any of these divergent attempts at translation carries conviction ? Are these wishes for the withdrawal of raiders, or for the protection of the pastures, the kind of thing which one expects to find on a statue dedicated in a temple ? I do not think that anyone will answer in the affirmative.

My conclusion, avowedly the conclusion of an outside spectator, is that very little real advance has been made as regards the interpretation of the Sinaitic inscriptions. Their condition is far too bad, there are far too few recurring words, and the splitting up into separate words is far too difficult in the absence of all marks of division.

Sethe has been unjustly accused of discouraging all efforts to go beyond his own conclusions, and I myself have been misunderstood when I expressed some scepticism even as to Sethe's relatively cautious proposals. The bald fact, as I see it, is that the Sinaitic material is too slight, too badly preserved, and too ambiguous to admit of any very serious attempts at complete interpretation. That this is the case is not the fault of the learned and ingenious

scholars who have devoted time and patience to such attempts. The crying need is for more and better material, and if a competent and well-equipped archaeological expedition were again sent to Serâbît el-Khâdim such material would very likely be obtained. That is the real need of the moment. In the meantime a halt might well be called to controversy; the literature of the subject has already become alarmingly bulky.

Let me insist once again that it is only for the letters contained in the name Ba'alat that there is direct corroborative evidence. For the other letters there is a greater or less intrinsic probability, the estimation of which will of course differ with different scholars. Those who accept Ba'alat will also accept most of my other identifications, as well as some additions to them made by Sethe and others. Some statistics with regard to the inscriptions may not be out of place. They now number fifteen in all, including the squeeze from the Wâdy Maghârah (No. 384), the Brussels duplicate of the bust with the letters T–N–T, and the three new inscriptions from Serâbît. I have not sufficient confidence in the copy of No. 358 to use this at all. The remainder may be calculated to contain about 226 signs, of which some 30 are highly problematical. Thirty-one species are the maximum that could conceivably be allowed, and of these at least 8 should at once be discarded. The commonest letters are those that have been identified with *bēth*, *lāmedh*, *mīm*, *nāḥāsh*, *'ayin*, *shīn*, and *tāw*. All these occur upwards of thirteen times. In the second rank, with from seven occurrences upwards, are the letters equated with *āleph*, *hē*, *zain*, and *rēsh*, respectively. Other letters for which fairly good evidence is forthcoming are those that have been identified with *gimel*, *wāw*, *jōdh*, and *sāmekh*, respectively; for *pē* the evidence is poor. I wish to draw attention to a sign which looks a little like the Egyptian hieroglyph for the bud, *nḥbt*, ; in Miss Calverley's copies this appears once in No. 353 and twice in No. 352, and seems really distinct from *lāmedh*. In Nos. 352 and 356 is a sign closely akin to the *kaph* of the Ahiram inscription found at Byblos; whether this is really the same sign as that which has been assigned to *k* in Nos. 345 and 353 is uncertain.

It is really remarkable how few identical sequences of letters occur more than once in these inscriptions. The name Ba'alat forms an outstanding exception. Cowley's proposal to take the first two signs of No. 349 as *'ani*, "I," which has always seemed to

me plausible, gains in probability from the fact that the new inscriptions Nos. 356 and 357 both seem to begin in the same way. Miss Calverley's study of the tablets—unhappily I had no opportunity of checking over her results in Cairo—has brought to light two important facts overlooked by Professor Butin. It seems evident that the first eight letters in the right-hand column of the tablet bearing the image of Ptah (No. 351) must be identical with the first eight letters on No. 353; and again, in the left-hand column of No. 351, as also in No. 350, are probably the four letters *mīm, āleph, hē*, and *bēth*, which Eisler and Grimme very plausibly translate as "beloved." It seems quite likely that the title which, as Cowley first saw, begins with *rabh*, "lord" (Nos. 349 and 346), may also once have stood in the broken and very illegible new text No. 356. A more hazardous conjecture is that the sandal-like sign, which in No. 351 stands between *nāḥāsh* and *bēth*, is to be found again in the badly made sign between the same two letters in No. 350. With regard to the older suggestions not modified by Professor Butin's and Miss Calverley's studies, I have always been attracted towards Dr. Cowley's *'āl na'am*, "by the favour of," in No. 346, and towards Tanith on the Brussels busts. It is disappointing that the Semitists will have none of the latter suggestion. That the three letters should spell a proper name seems to me almost imperative, and that the name should be that of a goddess rather than that of a private person would appear to be indicated by the existence of two busts bearing the same inscription, as well as by the possible feminine ending. But it cannot be too strongly emphasized that all the preceding suggestions, both as to letters and as to words, are at present both unverified and unverifiable hypotheses. It is not until some inscription has been completely translated in a way which satisfies both philology and common sense, and, until the results obtained thereupon have been successfully applied to other inscriptions, that the problem of the alphabet will take rank among the problems definitely solved by scholarship.

In the midst of this incertitude it seems premature to entertain any very decided views as to the place and time to be attributed to the invention of the alphabet. That it was the deliberate achievement of some man of genius seems obvious. Sethe's insistence on the Hyksos period as the age of the invention has never struck me as really probable, though my own preference for the end of the

XIIth Dynasty rests on very slender grounds. A rather precarious argument may perhaps be drawn from the fact, emphasized by Sethe, that the earliest Phoenician we possess betrays all the characters of a cursive script presupposing papyrus as the material and a reed as the instrument; note the slanting forms of many of the letters, and the downward stroke to the right of *mīm*, *nūn*, *rēsh*, and others. Despite the contrary evidence of Meroitic, and in some degree also of Egyptian hieratic, it seems unlikely that Phoenician should have adopted an essentially cursive alphabet for its stone inscriptions if it had ever known that alphabet in a more pictographic, more monumental form.

We may perhaps conclude that the Sinai script was not indigenous to the Phoenician-Aramaic-Moabite area, but was introduced thither only in its cursive form and through the medium of papyri. Various indications point rather to the south and east as the real home of the original Semitic alphabet, of which the Sabaean and Minaean inscriptions retain a greater degree of the original character. In this respect my conjectural opinion coincides roughly with that of Jensen. There are serious difficulties in the way of regarding Sinai as the actual place of the invention, a hypothesis which Ullman and Butin seem to favour. Perhaps one should look farther afield to the still little-explored land of Midian. I am totally unable to estimate the importance to be attached to the Thamūdic inscriptions recently brought into the field of discussion by Grimme. Let me insist once again that more and better material is the real need of the moment, if this intensely interesting problem is to receive complete and final elucidation.

EXCAVATIONS AT TELL EN-NASBEH, 1926–7.

We have already had a condensed account by Professor Badé of the earlier stage of his work in the *Q.S.* for January, 1927, and also an additional note by Professor Grant in the July number. Professor Badé now sends us a "Preliminary Report" of the excavations at Tell en-Nasbeh which contains several new points of interest. In this report there is a survey-map showing that a considerable section of the ancient city wall has been uncovered, as well as a great number of the adjoining dwellings. There is a very interesting photograph taken from a German aeroplane, which gives an amazingly suggestive outline of the once inhabited—then entirely buried—area, and there is a photograph of a striking plaster model restoration of the city wall—partly, of course, conjectural. There are altogether twenty-six plates and illustrations in the text.

It may be well to remind our readers that Tell en-Nasbeh lies on the top of a very commanding hill seven miles north of Jerusalem and to the west side of the Jerusalem-Nablus Road. Professor Badé believes that it is the site of the important Hebrew fortress-sanctuary of Mizpah.

Four hundred and fifty feet of the massive southern wall of the city have been uncovered, exposing three salient towers with a width of 30 feet, projecting out from the wall 7 feet, but not bonded into it. The base of each of these towers is enveloped by a revetment or glacis, built of somewhat smaller stones than those used in the tower and the wall. In addition to these massive towers, there are at fairly regular intervals what appears to have been four towers integrated with the wall and extending only 1½ or 2 feet beyond its face. Although the original wall belongs to the Bronze Age, there are evidences of repair at a later time which the excavator is inclined to associate with the passage in 1 Kings xv, 16, where it is stated that Asa, king of Judah, fortified the walls of Mizpah against the encroachments of the Northern Kingdom. While the earlier wall is in places 20 feet thick, the Hebrew one attains in places the extraordinary breadth of 26 feet.

There is an account—with a plan—of a building which is considered to be an "Israelite Sanctuary," and near it was found a rock-surface with many cup-marks and caves.

A number of very ancient (? pre-Semitic) tombs were cleared out. In one were found the remains of no less than 75 bodies. Outstanding types of pottery in these tombs were "fine examples of buff hand-made ware painted in red lines," and a very interesting "series of cups within cups, whose purpose must at present remain a matter of conjecture. The small inner cup is in each case attached to the rim of the outer, so that it forms an integral part of the whole." Regarding these vessels—which are illustrated with several different types—Professor Badé writes: "Their strange double cups must have served some ritual purpose in connection with the dead, and in that case are of religious significance."

One of the most interesting of the finds was "a tunnel-like passage leading into the mountain," with "fourteen steps down into a large grotto." This grotto "yielded one of the most significant discoveries of the season—a jar-handle seal whose inscription, in old Hebrew, or perhaps Aramaic, characters seemed to me clearly to read M. Z. P." This jar-handle is dated to the 6th or 7th centuries, and, if correctly read, would appear to support the identification of Tell en-Nasbeh with Mizpah.

E. W. G. M.

"FIERY SERPENTS."

Mr. A. F. Buxton informs us that when travelling in Sinai in March, 1877, he saw between Akabah and Nakhl a snake about 2 feet long, of a most gorgeous colouring, so that he described it in his journal as "flame-coloured." Later it occurred to him that it may have been of the same species as the "fiery" serpents of Moses (Num. xxi, 6). He was unable to identify it with any other recorded specimen, but thinks it probable that it is that which he now finds described (Anderson's *Egyptian Reptiles*) as *Psammophis schokari*. There can be no certainty as to the identity of the "flame-coloured snake" and the "fiery serpents," but the identity of description is remarkable.

In connection with this we have received, and gratefully acknowledge, the following remarks from Mr. H. L. Parker, of the Zoological Department (Reptiles) in the British Museum :—

"*Psammophis schokari* (Forskal) is a common species found around the northern and eastern borders of the Sahara, through Arabia, Syria, Persia, Baluchistan, Afghanistan, and Sind. It is extremely variable in colouring, one extreme being longitudinally striped with alternating bands of brown and yellow and scarcely superficially distinguishable from the Hissing Sand Snake (*Psammophis sibilans*), and the other uniformly coloured in shades varying from the rufous-pink mentioned by Mr. Buxton to pale-grey ; these colour-varieties are not local races, but may occur anywhere within the range of the species. These snakes are technically venomous, but, as the poison fangs are relatively small and situated at the extreme hinder end of the upper jaw, they can only be brought into play on the smallest objects. Unless a man was bitten on the fingers or toes it is doubtful whether a poisonous wound would be inflicted, but even if it were, it would not be any more dangerous than that of, say, the common English Adder. Taken altogether, it seems unlikely that *Psammophis schokari* could be responsible for the heavy mortality recorded in the passage which Mr. Buxton quotes."

ARCHAEOLOGICAL NOTES.

We are permitted to print extracts from a letter written (September 12, 1928), by the Rev. Phythian-Adams to Sir Charles Marston, describing a preliminary visit which he and Professor Garstang made to the supposed site of Hazor, as part of the expedition in which Sir Charles Marston was collaborating. (See *Q.S.*, October, p. 168) :—

"Professor Garstang and I started from Jerusalem on Tuesday, August 28, and drove straight to Tabgha, with a brief halt to inspect the excavations at Balata. Here Dr. Welter, the new excavator, was most courteous and showed us round. It appears, according to him, that this is not the site of the city of Shechem, which must have been where Nablus stands, but rather that of the Tower of Shechem mentioned in the story of Abimelech. It was a rectangular strong tower with a temple inside, fortified with a ramp of beaten marl faced with masonry. Later it was enlarged and surrounded with a megalithic wall; the dating seemed to us to be rather hazy, but the last wall seems to belong to the late Bronze Age (*i.e.* 1400–1200 B.C.). If Dr. Welter's identification is correct, the accuracy of the O.T. narrative is strikingly confirmed. You will note that the Tower of Shechem there lies *outside* and east of the city.[1]

"Having stayed the night at Tabgha, we moved northwards to the frontier, with a brief visit to Hazor (el-Kedah). You will have heard much about this stupendous site, so I will only say that it really is amazing! We walked round the ramparts, and it became clear to me that we have here the most important site in Palestine. Thence we went to Metallah, crossed the frontier, at which very striking views of the great Litani gorge are obtained, and indeed round northwards, eastwards, and finally southwards to Banias and Tell el-Kadi (Dan). At Banias we found the celebrated grotto fallen in and the site much overgrown with verdure; it was, in fact, rather a disappointment. Tell el-Kadi, on the other hand, is an imposing mound, or, rather, mound-enclosure, for it has a rampart round three sides and a great pool and spring on the fourth. The pottery fragments we picked up suggested that it was last inhabited in the Bronze Age; so, very possibly, it is not the Israelite Dan but the Canaanite Leshem which the Danites captured and destroyed. North of Metallah and guarding the little plain which borders upon it we noted a large abandoned mound (et-Tell) which

[1] [*See* Burney on Judges ix, 46: "[this tower] stood, apparently, apart from the city of Shechem, and was probably . . . the stronghold of an unwalled hamlet" (similarly G. A. Cooke in the *Camb. Bible*).—Ed.]

must have been an important city. We could not stay to visit it, and, as it is in French territory, it is rather outside our beat; but in considering the history of those early times its existence must be borne in mind. South of Metallah the great mound of Abl (? Abel Beth Maachah) is very conspicuous and must have been a very important fortress; it completely blocks the descent from et-Tell (*see above*) over the low ridge of Metallah into the Jordan Valley. It is, in fact, the frontier sentinel at this point, and must have played a prominent part in early Canaanite history.

"After a long and exhausting day we reached Safed, where we spent two nights (29th and 30th). On the 30th we visited Meirun and Kh. Shema, a few miles west of Safed, to see whether their contiguity and the collocation of names was merely coincidence in its suggestion of Shemron-Meron. It was. Shema is a small isolated hill-fortress and Meirun, has never been important. We are now disposed to look for Meron at Marun some miles W.S.W. of Kadesh Naphtah. The Professor will visit this in due course. The following day we moved on by a most beautiful road from Safed to Acre by Ba'neh (? Beth Anath) and Beruch. Tell Beruch, commanding the entrance to the plain, is an immense and imposing mound, whose name and history is still unknown. South-west of it, near Shaib, a similar ancient fortress-mound (Kh. Yanin) blocks the Wady Shaib. This, too, is still a mystery. South of it the little village of Cabul still clings to the lower hill-slopes, as insignificant as it was in the days of Hiram!

"From Acre we went north to ez-Zib (Achzib), which is clearly a Bronze Age site, and on a subsequent day we advanced to Ras en Nakura. Here there is a spring called Ain Meshurifeh with an early Bronze Age settlement on a low plateau above it. Dr. Cook has suggested that this might be Mishrephoth Maim, and we think we have found evidence that this is true.[1] If so, it may throw a new light on the campaign of Joshua against Jabin of Hazor, but I will not spoil things by going into detail at this early stage. We explored the plain all around this point and Kabry (the springs and gardens there make a perfect Paradise, but are, alas! malarial) and registered a good number of sites for possible identification later on. Others we dismissed as impossible 'arm-chair' suggestions, but once more I must abhor detail.

"After that we made Nazareth our centre and made expeditions to Beisān and Megiddo. At Beisān work had only just started, so there is nothing new to report. At Megiddo we inspected the 'Stables of Solomon,' and are inclined to accept this identification. They are most interesting, and it will be a pity if Mr. Guy has to destroy them entirely in burrowing deeper.

"Another expedition took us over rough tracts completely round Tabor. At Endor we found an ancient hill-fortress which has been entirely overlooked, and from the summit of Tabor a very imposing mound (Tell

[1] [Mr. Phythian-Adams evidently refers to the Oxford Professor, Canon G. A. Cooke, and his commentary on Joshua xi, 8. But Professor Cooke points out that the site named above seems too far south to suit the connection with Sidon in xiii, 6.—Ed.]

el-Makerkush) which blocks the lower ravine of the Wady Sherrar on its way to Jordan. I am myself inclined to suggest indentifying this with the 'Dor' of Joshua: Dor and Endor are mentioned in a group with Beth. Shan and Ibleem, Taanach, and Megiddo. I have always felt that Tanturah (Dora) lay outside the picture of the book of Joshua, and I believe that the later description of the inheritance of Issachar and Manasseh tends to confirm this view. The passage about the 'three lights'[1] is obscure and possibly corrupt: but I have an inward feeling that it conceals an important topographical distinction. Anyhow, it is an interesting thought and may lead us further.

"I have forgotten to say that the site of Kurn Hattin interests us immensely. This dominant feature of the entire landscape of Lower Galilee *appears* to be nothing more than a jagged outcrop of rocky crags. We *found* it to be an immense hill-fortress with huge mound-ramparts and an enclosure capable of containing many hundreds of chariots. The neighbouring Kh. Madin suggests that this was indeed Madon of Jabin's confederacy. It is a Bronze Age site and a miniature of Hazor (Kedah).

"Our last big trip was after a few days' rest in Jerusalem, and has brought us to the threshold of the most interesting discovery of our tour. We drove by Nablus and Tell Karem into the plain of Sharon, turned north by a new road past Yemma (which may be the chariot-camp of Thothmes III, Yehem, for it has all the appearances of an ancient Bronze Age encampment) to Baka and the great hill-fortress which to-day is crowned by the village of Jett. It is here we are looking for the Philistines' assembly point, Aphek. Yemma (Yehem?) lies only a mile or two to the south, and that was the point where Thothmes III had to decide which of three passes he should take across the hills to the Plain of Esdraelon. The Philistines chose a site a little nearer the hills, but the object of both was the same. Unfortunately, we could not at the time (it was my last day) carry through our exploration of the routes, but we have learned that one of them passes through a ravine (such as is described by the Egyptian courier in Pap. Anastasi I) artificially cut through the rock and bearing the marks of wheels. Needless to say, Professor Garstang proposes to make a complete examination of all these routes, which will bring out (we believe) entirely new facts about the topography of these regions.

"To conclude, the whole trip, which was strenuous though all too short, has provided us with a great deal of new and intensely interesting information.

"This brief sketch is merely tentative, and you must not accept our conclusions until further research has strengthened them."

Miscellaneous Notes.

Professor Badé, in his preliminary report on the excavations at Tell en-Nasbeh, 1926–7, reproduces a jar-handle seal bearing three Hebrew characters. With Professor Torrey and others he,

[1] [? A misprint for "heights."—Ed.]

quite independently, reads them as *m-ṣ-p*, *i.e.* Mizpah. They are, however, to be compared with the seal which Professor Sellin found at Jericho (Sellin and Watzinger, p. 158), and which he read as *m-ṣ-h*, identifying it with the place Mozah in Joshua xviii, 26. Fuller information on the readings would be desirable.

Professor Albright's brief report of the second campaign at Tell Beit Mirsim, which he identifies with Kirjath-Sepher, contains much of interest. His remark that the principal industry of the town was weaving and dyeing woollen garments throws light upon the reference in 1 Chron. iv, 21, to the Judaean families that worked in linen. A seal of "Eliakim the 'boy' (*na'ar*) of Yochin" is regarded as probably of the time of Jehoiachin.

At Beth-shemesh Professor Grant reports the discovery of an open-air sanctuary with a circular stone table of offerings, betyls, etc.; a little to the north was a huge temple structure concealing an earlier smaller one. The three are dated in the XIIIth–IXth centuries B.C.

TRANSLITERATION OF HEBREW AND ARABIC CONSONANTS.

HEBREW.

Hebrew.	English.	Hebrew.	English.
א	’	כ ך	kh
ב	b	ל	l
ב	bh	מ ם	m
ג	g	נ ן	n
ג	gh	ס	s
ד	d	ע	‘
ד	dh	פ ף	p
ה	h	פ ף	f
ו	v, w	צ ץ	z
ז	z	ק	k
ח	h	ר	r
ט	t	ש	sh
י	y	ש	s
כ	k	ת	t
		ת	th

ARABIC.

Arabic.	English.		Arabic.	English.
ا	’		ض	d
ب	b		ط	t
ت	t		ظ	tz
ث	th		ع	‘
ج	g	or j in Syrian Arabic.	غ	gh
ح	h		ف	f
خ	kh		ق	k
د	d		ك	k
ذ	dh		ل	l
ر	r		م	m
ز	z		ن	n
س	s		ه	h
ش	sh		و	w
ص	z		ي	y

Long vowels marked thus:—ā, ē, ī, ō, ū.

THE

PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

It is the great desire of the Executive Committee to continue the explorations on the hill Ophel, in Jerusalem. What has been done is distinctly encouraging, but the area excavated is only a small fraction of that at present available. Much as the Committee wish it, it will be impossible to continue the work unless those interested in Biblical archaeology come forward with financial support in greater numbers than in recent years. The last small excavation on Ophel—the full account of which is not yet published—was carried out almost entirely at the expense of one generous donor—Sir Charles Marston. It is, however, unreasonable to expect him to continue to finance this Society's excavations unless the other supporters of the Palestine Exploration Fund rally to his support. The Committee have been considering various schemes for bringing their work to the attention of the general public, especially those who are interested in the Bible. One proposal, still under consideration, is that of a printed appeal widely distributed through the post to individuals. Their attention has also been called to the fact that several of those whose names have long appeared as Members of the General Committee have, either through lack of interest or through oversight, ceased to subscribe.

Another plan, perhaps the most hopeful, is that of again reviving the Local Associations and appointing Local Secretaries. There are flourishing Local Associations at Edinburgh and Glasgow. Last month, on the invitation of the two Local Secretaries, the Hon. Secretary paid visits to these centres, and, thanks to the local efforts, most successful meetings were held at which he gave Lantern Lectures upon the excavations at Ophel. If those able and willing

to organize such meetings would communicate with the Hon. Secretary at the office (2, Hinde Street, Manchester Square, W.1), arrangements can be made for similar lectures elsewhere. It was by such means that the work of the Palestine Exploration Fund was made known to the public in earlier days. It is not enough merely to hold a meeting, a local secretary with energy and knowledge must follow up the effort by enrolling Annual Subscribers. It should be understood that all additions to our present income can be expended on actual excavations. We have every possible assistance from the British Government authorities in Palestine, we can work now on exceptionally favourable terms, and we have in Mr. Crowfoot, the Director of the British School of Archaeology, one whose work is of the highest quality in every way.

We are indebted to Mr. Alan Rowe, the Director of the excavations at Beth-Shan, for placing at the disposal of the Fund one of the most remarkable and valuable contributions to the religion and archaeology of Ancient Palestine that have been made for many years. When we say that only a proportion of the photographs could be published, readers will have some idea of the wealth of illustrative material offered to us; and they will find in the unique bas-relief of the lion and dog, and in the no less important altars, most welcome examples of what further Palestinian excavations can furnish. The American excavations have been conspicuously successful and illuminating. They have been of a sort the value and interest of which could be immediately seen. Not all excavations have had so much that is both spectacular and important to show: some—like those conducted by the Fund at Ophel, for example—produce solid and objective results that are less impressive to the ordinary eye. We congratulate the Museum of the University of Pennsylvania both upon the work they have achieved, and upon the generous and public-spirited manner in which they have made the results of their excavations so quickly and so widely accessible.

Excavations in Palestine have recently been brought to the attention of the public through *The Daily Telegraph*, which for some weeks has been publishing every Saturday articles on "The Bible and the Spade." They are by the Rev. C. B. Mortlock, who visited

Palestine on behalf of that paper, and have given a very useful and informing description, with illustrations, of the work carried out, now or in the past, by the P.E.F., by Sir Flinders Petrie, by Mr. Alan Rowe, and by others. Meanwhile a more spectacular discovery has been reported from Ur and Kish in Babylonia, where the excavating parties found evidence for an inundation or flood on such a scale as to allow the conjecture that now at long last the substantial basis of the story of the Deluge had been discovered. It is an old view held by Driver, Huxley, and many others—that the Biblical and Babylonian accounts of the Deluge go back ultimately to some vast inundation which was never forgotten; but, needless to say, no one goes so far as to say that the details of the old written accounts are thereby proved to be authentic. It is one thing—and very important at that—to find what may be the authentic basis or starting-point of some ancient tradition or narrative, but it does not follow that all the elements or details in it have an equally authentic basis. Meanwhile, it is much to be hoped that it will be more widely recognized how much the spade in the Near East has to contribute to our knowledge and understanding of the past; the opportunities have never been so favourable.

The Daily Telegraph states that, thanks to the generosity of Lord Melchett and Sir Charles Marston, it is proposed to resume the excavation of Jericho under the direction of Prof. John Garstang. About twenty years ago the ancient site was partially excavated by Dr. Schumacher and Prof. Sellin, and it is hoped that the difficult questions of the date of its capture and destruction, its cultural relations, etc., may be more conclusively settled than they were on that occasion. The site is so important, and has so much to offer, and the earlier excavation so incomplete, that the new proposal is highly welcome.

The Rev. Phythian-Adams writes to make one or two corrections to his letter printed in the January *Q.S.*, p. 59 *sq.* In line 7 of the second paragraph of the letter (p. 59), "indeed" should be "worked." He writes: "It is part of the anomalous delimitation of this northern frontier of Palestine, that while from Abl on the Palestinian side the distance across the valley to Tell el-Kadi and

Banias is quite a short one, it is nevertheless necessary not only to cross into Syrian territory, but thereafter to make an immense sweep of many miles northwards, eastwards, and finally southwards before one can reach these places which could have been visited in under an hour by a direct route across the Jordan. The absurdity of the position is increased by the fact that Tell el-Kadi is actually on Palestinian soil!" In line 9 of the second paragraph on p. 60, "Beruch" should be "Berueh." Apropos of p. 61, Mr. Phythian-Adams writes: "I very much hope that someone will find a chance of investigating Tell el-Makerkush, which seemed from a distance to be an important site, hitherto, I believe, unrecognized. The fact that it stands as sentinel over the gorge leading from the plateau around Tabor into the Jordan Valley seems to place it at once in that series of great fortresses, Jokneam (Abu-Shusheh), Megiddo, Taanach, Ibleam, and perhaps Beth-Shan, which guarded from southern invaders the approaches to the Plain of Esdraelon. My suggestion that this might be the 'Dor' of Joshua was based not merely on the concurrence of the names Dor and Endor (Joshua xvii, 11), but on the fact that the spring which is to this day called Ain Dor, flows down the valley which passes under the slopes of Tell el-Makerkush. It is easy to see that if this Tell was once a city called Dor, the spring which supplied its water would very soon be given the same name. There may be nothing in it, but I think it is decidedly worth investigation."

— —

Dr. H. J. Orr-Ewing reports that a phenomenon occurred in Jerusalem on February 4th which is of interest, especially as a similar condition took place at the beginning of February, 1857, and followed a time of severe frost and snow very similar to that which has recently been experienced in Jerusalem: —

"On Monday, February 4th, between the hours of 1.30 and 3.30 in the afternoon, a storm of mud took place in Jerusalem and its environs. The sky looked a very curious colour and the wind was very high, as indeed it had been for three days, and then it was noticed that the rainwater running into one of the cisterns was muddy. Thinking that this might be due to a deposit of dust on the roof, although dust after such rains and storms would be most unusual, Mr. Datzi began to investigate and took samples of the rain-

water which was running into six different cisterns, and found that all showed a heavy suspension of mud. He then set out a vessel in the open and collected a similar mixture, and finally on examining the rain-gauge found that that also showed the same condition. The earthy substance in the specimens amounted to $\frac{1}{2}$ per cent. per volume, and took 36 hours completely to precipitate. The explanation must be a severe dust-storm in the desert and the earth carried through the air with the gale of wind from the south-west and then precipitated as mud."

In *Walks in and around Jerusalem* the Rev. Canon Hanauer points out that the storm of mud in February, 1857, which must have been much worse that the recent one, was of reddish-yellow mud, and that it was deposited so heavily upon the south-east wall of the city as still to have left stains there. He also records that the deposit, being analysed at the time, was found to consist of shells and such substances of a microscopic nature as could only have come from the Sinai peninsula.

Lieut.-Commander Buchanan, who took part in excavations at Jerash in 1928, has returned to Palestine, and has been temporarily occupied with work in Transjordan; but he is expected to return to Jerusalem later in the season.

By an arrangement with Sir Flinders Petrie, Members of the P.E.F. are enabled to purchase at half the published price the Reports of the British School of Archaeology in Egypt dealing with that Society's researches in Palestine. Reciprocally, the excavation Reports of the P.E.F. henceforth issued are available to Members of the School in Egypt similarly at half-price. P.E.F. Members desirous of taking advantage of this privilege should apply to the Secretary, 2, Hinde Street, W.1.

Subscribers in the United States are asked to kindly note that subscriptions should be forwarded to the Hon. General Secretary, Prof. W. M. Randall, of 55, Elizabeth Street, Hartford, Conn., U.S.A.

Antiques for Sale.—A small collection of antiquities from the excavations at Ophel is on view at the Museum of the Fund, 2, Hinde Street, Manchester Square, W.1, and a number of duplicates, including pottery lamps, stamped Rhodian jar-handles, etc., are on sale.

The Committee are glad to report that the *Annual*, 1923–25, on the Ophel Excavations has been published and is on sale. The price is £2 2*s*. to non-subscribers.

The account is by the excavators, Prof. Macalister, Litt.D., and the Rev. Garrow Duncan, M.A., B.D., and consists of four chapters on the Narrative, the Rock Surface, Rock-cuttings and Constructions and Miscellaneous Finds, with an Appendix on Greek Inscriptions stamped upon Jar-handles (pp. 1–212). There are two important maps, an air-photograph of Mount Ophel, 26 plates and 217 illustrations. The maps, which were prepared under the supervision of Sir Charles Close, K.B.E., C.M.G., F.R.S., the Fund's Honorary Treasurer, show the results of all the excavations made upon the Ophel ridge during the last sixty years.

Mr. H. C. Luke's translation and annotation of a 16th century MS., under the title of *A Spanish Franciscan's Narrative of a Journey to the Holy Land*, is on sale at 4*s*. bound in cloth, and 2*s*. 6*d*. in paper covers.

The new plan of Jerusalem on a scale of approximately 1 : 5000, or about 12 inches to a mile, recently published by the Pro-Jerusalem Society, is now on sale at the P.E.F. office. Unmounted it measures 39 × 34 inches, and the price is 5*s*.; mounted on cotton and folded to size 8 × 6 inches, price 9*s*. The latter form is the more convenient, as owing to its size, the unmounted sheet cannot be sent through the post without a fold.

The library of the Palestine Exploration Fund contains many duplicate volumes. They may be had separately, and a list, with the price of each volume, has been prepared, and can be obtained on application.

The list of books received will be found below.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but they are preserved in the office of the Fund, where they may be seen by subscribers.

The Committee gratefully acknowledge the following special contributions towards the Ophel excavations from :—

	£	*s.*	*d.*
Sir Charles Marston ... ... (This being the final instalment of the £2,000 generously given for the 1928 Season's work)	500	0	0
The late James Melrose, Esq.	25	0	0
Stewart Margetson, Esq.	5	5	0
Miss Alice M. Parker	1	1	0
Miss Farmar	4	0	0
E. A. Rawlence, Esq.	5	5	0
Miss E. M. Courthope	4	0	0
Ernest Rabone, Esq.	1	1	0

The *Annual Report*, with Accounts and List of Subscriptions for 1928 is issued to Members of the P.E.F. with this number.

A complete set of the *Quarterly Statements*, 1869–1910, containing some of the early letters (now scarce), with an Index, 1869–1910, bound in the Palestine Exploration Fund cases, can be had. Price on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £12 12*s*. A catalogue describing the contents of each volume can be had on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The Museum at the office of the Fund, 2, Hinde Street, Manchester Square, W.1, is open to visitors every week-day from 10 o'clock till 5, except Saturdays, when it is closed at 1 p.m.

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from Prof. Randall, Honorary General Secretary to the Fund, Hartford College, Conn., U.S.A.

The Committee have to acknowledge with thanks the following :—

The Near East.

The Expository Times, March : Altars and Sanctuaries in the Old Testament, vi, by J. Battersby Harford.

The New Judaea, February 28.

The Antiquaries Journal, January : Note on a bas-relief found at Ur, by E. Mackay ; etc.

The Composition of Judges ii, 11—1 *Kings ii*, 46, by Harold M. Wiener.

Bulletin of the American Schools of Oriental Research, December.

The Museum Journal : Philadelphia, September : Old Sumerian Art, by L. Legrain ; December, The Sumerian Art Shop, by the same.

Jewish Quarterly Review, January.

Journal of the American Oriental Society, December.

American Journal of Philology, October–December.

Geographical Review (*U.S.A.*), January.

The Homiletic Review.

Bulletin of the Metropolitan Museum of Art, February.

Syria, 1928, iii : The sixth campaign of the excavations at Byblus by Maurice Dunand ; Excavations at Nerab, by Abel and Barrois ; Magaratarîcha, by Piquet-Pellorce and Mouterdo ; Archaeological mission in Upper Jezireh, by P. Poidebard ; etc.

Journal Asiatique, October–December, 1927 : Aramaic inscriptions from Memphis, by Isidore Lévy.

Bulletin de Correspondance Hellénique, January–June, 1928.

Archiv Orientální : Journal of the Czechoslovak Oriental Institut, Prague. Edited by B. Hrozný. Vol. 1, No. 1, March, 1929. Personal qualities according to the Rwala Bedouins, by A. Musil ; The teaching of Amenemopet, by F. Lexa ; Narem-Sin and his enemies, by B. Hrozný ; Former bridges between Orient and Occident, by A. Wesselski, etc.

Biblica, i : A new pre-Crusade Sanctuary of St. Stephen ? by E. Power ; Pilgrim of Bordeaux, by the same ; Notes on some sites in the Eastern Ghôr, by A Mallon ; The American excavations of Beisân, by the same.

Institutiones Biblicae : De Pentateucho, by Augustine Bea, S.J.

Orientalistische Literaturzeitung, January: The age of Egyptian imperial power, by M. Pieper. (Numerous critical reviews, notes, and bibliographies.)

Mitteilungen des Deutschen Archaol. Instituts: Athenische Abteilung: lii, 1927.

Zeitschrift für die alttest. Wissenschaft, 1929, I: The American excavations at Tell Beit Mirsim, by W. F. Albright; The tree of life, by K. Budde and H. Th. Obbink; Chronicle of excavations, etc., by the Editor (Dr. J. Hempel).

Zeitschrift des Deutschen Palastina-Vereins, li, 4: The alleged Assyrian province of Gilead, by A. Jirku; The Roman road Antiochia-Ptolemais, by A. Alt; A Christian gravestone from Gaza, by the same; The Roman road through the Sinaitic peninsula, by E. Sachsse; Ramatheum and Emmaus, by G. Beyer.

Reallexikon der Vorgeschichte: articles Weaving, Wine, etc., by Peter Thomsen. (Offprints.)

Comparative Statement of Rainfall at Stations in Palestine for the month of December, 1928. (From the Director of Agriculture and Forests, Palestine Government.)

Journal of the Palestine Oriental Society, viii, 4: Epigraphical notes on the history of Christianity in Palestina Tertia, by A. Alt; The site of Penuel, by C. Steuernagel; Palestinian customs and folklore, by St. H. Stephan; Egypt in Asia in the XXIst century B.C., by W. F. Albright.

La Revue de l'Académie Arabe: Damascus, November–December.

Al-Mashrik, February: Simon the Cyrenaean, by P. Salhani; Oriental music, by Wadia Sabra.

The Committee will be grateful to any subscribers who may be disposed to present to the Fund any of the following books:—

The Memoirs of the Survey of Western Palestine.

The Quarterly Statement, from 1869 up to date.

Duc de Luynes, *Voyage à la Mer Morte* (1864); published about 1874.

K. von Raumer, *Der Zug der Israeliten.* (Leipzig, 1837.)

Lagarde, *Onomastica Sacra* (1887).

New Edition of the Babylonian Talmud, English Translation. Original text edited, formulated, and punctuated by Michael L. Rodkinson. Revised and corrected by the Rev. Dr. Isaac M. Wise. Published by the New Amsterdam Book Company, New York. Vol. i, *Sabbath*, already in the Library; subsequent volumes wanted.

Whilst desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they do not necessarily sanction or adopt them.

Form of Bequest to the Palestine Exploration Fund.

I give to the Palestine Exploration Fund, London, the sum of_____ to be applied towards the General Work of the Fund; and I direct that the said sum be paid, free of Legacy Duty, and that the Receipt of the Treasurer of the Palestine Exploration Fund shall be a sufficient discharge for the same.

Note.—*Three Witnesses are necessary to a Will by the Law of the United States of America, and Two by the Law of the United Kingdom.*

OPHEL, 1928.

SIXTH PROGRESS REPORT, COVERING THE PERIOD FROM DECEMBER 3 TO 22, 1928.

By J. W. Crowfoot.

This will probably be the last progress report on the excavations at Ophel in 1928, as the new work is practically completed, and little remains except to fill in the trenches and to prepare the final results. For the last fortnight the weather has been bright, and the number of men employed has averaged about one hundred.

The work carried out during the period under review falls into three divisions :—

(*a*) In the north-west section of Field 9. Here we have been successful in finding—

(1) The south-east corner of the south tower of the Gate discovered in Field 10 in 1927 ;

(2) The plan of the great cistern which abutted on it ;

(3) A further extension of the Hellenistic wall which runs along the west boundary of the southern half of Field 9 and the northern half of Field 11.

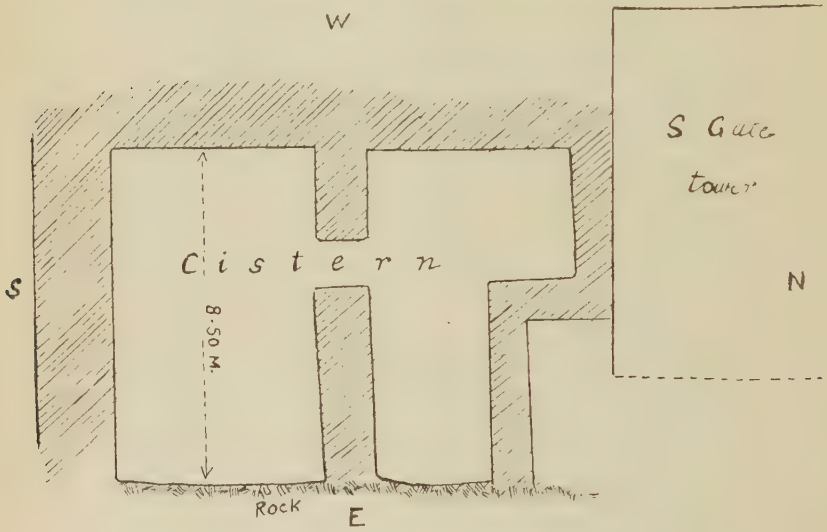
All three of these buildings were connected together, the tower of the Gate being the oldest. At the south-east corner of this tower only two courses remain, the bottom course being laid on the rock : all the stones are of mizzi, and the courses are regular but, as in the parts of the towers uncovered in 1927, it is impossible to distinguish headers from stretchers. Hellenistic and pre-exilic potsherds were found close to this wall.

The cistern, which was built in part against the tower but not bonded into it, measures over 36 feet in length, and was of a curious plan, as will be seen from a reference to the accompanying diagram. The walls were built on the rock, which was excavated between them to increase the capacity. We pulled one section to pieces,

and found in the black mortar with which it was built several fragments of Hellenistic pottery, nothing earlier or later: the cistern must therefore have been built in the 2nd or 3rd century B.C.

The Hellenistic wall which has already been mentioned in the last three progress reports, was bonded into the south wall of this cistern, and dates therefore to this period, though the masonry was of a different character. This wall has been traced over a distance of over 90 feet, and this discovery, with those of the cistern and the Gate towers, throws a welcome light on the topography of Jerusalem.

(*b*) The complex of rock-cut chambers in the south-east section of Field 9.



The largest room in this complex (No. 19) has been cleared to the rock, as well as a second room (No. 49) adjoining the cistern (No. 21) which owes its present appearance probably to the Mamluk period. The floor of No. 19 has been used as a quarry, and subsequently, perhaps in the Turkish period, after 5 or 6 feet of debris had accumulated, the southern part of the room was converted into an oil-press. In No. 49 the original south wall had also been quarried away, and a new south wall built about 5 feet north of it: the floor was then excavated 6 or 7 feet deeper, and four piers built to carry arches to support a roof with flat slabs like those in other cisterns in the neighbourhood which we have assigned to the Mamluk

OPHEL: ROCK-CUT ROOM 17 IN FIELD 9, LOOKING NORTH. ARAB ARCH BEHIND. (OCT. 21.)

[*To face p. 76.*

period. These operations, however, represent only the last of many vicissitudes through which this complex has passed, and before No. 19 became a quarry and Nos. 21 and 49 became cisterns, there can be little doubt that both formed part of the baths "restored" according to the inscription by Count Eugenius in the 6th century. This was avowedly a restoration, or an adaptation of some previous installation, and there are good reasons for thinking that this installation antedated the destruction of Jerusalem by Titus. What purpose can it have served? It seems difficult to us to imagine that such large and imposing subterranean chambers can have been originally excavated except as parts of a royal tomb. But the violent transformations and mutilations which they have suffered in the course of centuries have destroyed every vestige of a funerary origin and all chances of identifying its first occupant. The complex of rooms in Field 15 described by Mr. Duncan is probably a second royal tomb, and there should be others between these and to the south.

(*c*) Field 13.

We have excavated the western portion of this field down to the rock, and we have found no trace of the continuation of the Hellenistic wall. Close to the path we found another section of the cliff where the natural unscarped contour was still visible. Immediately above this a plain white mosaic pavement of the 6th century A.D. was laid within an inch or two of the rock, and on a slightly higher level there was a fine mosaic of the same period with an elaborate rosette pattern in the centre, double axes in the corners, and a cedar tree on an adjoining panel, tesserae of twelve different tints and colours being used in the floor. The doorway which led into this room was blocked by building of the Arab period, and the conditions elsewhere in the field so far as we dug were similar to those we found in the two fields above. There were subterranean chambers of comparatively modest dimensions, traces of extensive quarrying, and walls of the Arab period built upon Byzantine foundations. The smaller objects found, which included a Menas pilgrim-bottle and several pieces of carved stone, were rather more interesting than those found in the other fields.

December 23rd, 1928.

PALESTINE EXPEDITION OF THE MUSEUM OF THE UNIVERSITY OF PENNSYLVANIA

THIRD REPORT—1928 SEASON.

By Alan Rowe.
Field Director.

This report deals with the work of the concluding weeks of the 1928 season carried out by the Palestine Expedition of the Museum of the University of Pennsylvania on the great tell at Beisān, the Beth-Shan of the Old Testament (Plate II). The discoveries made in the Thothmes III level during the period in question have been of the utmost importance, and include the southern outer fort wall with its attached towers; a great courtyard to the west of the Mekal temple; a flight of steps leading up from the courtyard to the southern corridor of the temple; and the very large stepped-altar briefly referred to in my last report. But by far the most important discovery of all is a basalt panel sculptured in relief with fighting lions and dogs. This panel is most certainly the best monument of its kind ever found in Palestine and Syria, and is equal to the finest Assyro-Babylonian work. That such a masterpiece of the sculptor's art should have been found in Palestine is really astounding to us; and we of course naturally feel elated at the fact that it is our Expedition which has had the good fortune to unearth it. Summing up the results of the work of the season, it must be said that the excavations during 1928 have been on the whole much better than those of 1927, and have resulted in many discoveries of the utmost importance for the ancient history of the land of Canaan.

Thothmes III Level. (1501–1447 B.C.)

As the result of our excavations of this season we are enabled for the first time to get a correct and full idea of the general plan of the great temple in the Thothmes III level dedicated to the god Mekal of Beth-Shan. Previous to the period with which this report deals we had still the western part of the temple area to excavate, and now this has been done we find that we have to

make a few corrections in the provisional plan published in the *Museum Journal*, June, 1928, p. 169: the most important alterations being the removal of the wall (now seen to have belonged to a later period than the temple) to the west of the so-called "corridor" leading to the northern temple, and the removal of the so-called "ante-room." The plan accompanying this report now shows the final details of the temple, as well as the details of the great outer fort wall to the south of the level and of the new rooms excavated to the west and east of the temple (Plate III).

The Temple of Mekal.—Including the discoveries of this season with those of the last season, we see that the Mekal temple consists of: (1) A great courtyard to the west of the inner sanctuary (Plate IV). The entrance to the *courtyard* is on its western side, while the entrance to the *inner sanctuary* from the courtyard is near the south-eastern corner of the latter place, adjacent to the wooden pole upon which, perhaps, either the skin of the sacrificed animal was hung, or to which, as we shall presently suggest (p. 83, n. 1), a fierce hunting-dog was tethered in order to guard the entrance to the inner sanctuary. (2) An inner sanctuary containing a stone altar for meat-offerings, and a brick stepped-altar for cult-objects, etc. (Plate V, 1). (3) A room south of the inner sanctuary containing the great stepped-altar of sacrifice, etc. (Plate V, 2). Compare the stepped slaughter-house mentioned in the Punic inscription from Carthage, published by Cooke (*A Textbook of North-Semitic Inscriptions*, p. 130): "The Decemvirs in charge of the sanctuaries renovated and made this slaughter-house(?) steps: which was in the year of the s[uffetes . . .] Ger-sakun and Ger-'ashtart, son of Yahonba'al, son of 'Azru-ba'al, son of Shafat, and Bod-'ashtart, son. . . . " (4) A room, east of the inner sanctuary, containing the great circular oven for roasting the animals slaughtered upon the altar of sacrifice (Plate VI). (5) A well, 43 ft. deep, to the east of the oven room, used for supplying water to the temple. (6) A southern corridor, which, being on a higher level than the courtyard, has a flight of steps leading up to it from the courtyard. (7) A great stepped-altar, 16 ft. 10 in. wide, in the western end of the southern corridor. (8) A small room, situated behind the great stepped-altar, containing two *mastabahs* or "seats," and a socket for a peg to which was probably tethered an animal. (9) A small room containing the *mazzebah* or sacred conical stone, emblematic of

Mekal, at the eastern end of the southern corridor. Even to this day, in Beth-Shan, the natives regard with some respect a certain stone column, upon which they sacrifice small animals in fulfilment of vows made in the tomb-enclosure of Sheikh Halabi, a local "saint." This column, which dates apparently to the Roman period, is situated just outside the tomb. Nos. (2), (3), (4), (5) and (9) have been fully described in past reports, and so, like the room north of the inner sanctuary also, do not require to be dealt with here. The courtyard (No. 1) and the southern corridor (No. 6) have also been partially dealt with, but must be referred to again as they are now fully cleared.

The Courtyard of the Mekal Temple.—The courtyard of the Mekal temple, which temple, with the Arabs, we may well call *Haram esh-Sherif*, "The Noble Sanctuary," is of great and imposing proportions (Plate VII).[1] In ancient days, no doubt, the bulls to be sacrificed were adorned with the heavy bronze bull-and-lion pendant (found in the 1927 season—*see* the *Museum Journal*, December, 1927, p. 424) and led about in the courtyard, in order that the laymen could see and admire the animals to be offered up to the great Baal of the city. (The courtyard was, of course, the only part of the temple in which the laymen were allowed to enter.) In Egypt there were three great gods represented in the form of bulls, namely Apis of Memphis, Mnevis of Heliopolis of the North, and Buchis of Hermonthis (Heliopolis of the South). The suggestion we have made, that the bulls were perambulated in the courtyard of the Mekal temple at Beth-Shan, recalls to mind the Egyptian ceremony of the "Running round of Apis," the earliest mention of which is on the famous Palermo Stele of the Vth Dynasty. A much later occurrence of the same ceremony is shown on the walls of the temple of Edfu, in which we see the king actually "running round" with the bull itself.[2] On certain coffins Apis is depicted running round with a mummy on his back,[3] while a Saïtic coffin in the South Australian Museum has a similar scene with the following

[1] Its maximum measurements are, from east to west 82 ft., and from north to south 114 ft.

[2] Moret, *Du Caractère Religieux de la Royauté Pharaonique*, p. 140.

[3] Budge, *Osiris and the Egyptian Resurrection*, i, p. 13. The god is called "Osiris" in the descriptive text, but the Australian example proves that the god represents Apis.

legend above it : " Hail O Apis who runneth round in thy necropolis (*yemhet*) for ever and ever." Sacred decorated bulls were also utilized in the *sed*-festival of the god Osiris,[1] and in the festival of the god Min.[2] The head of a bull was found as an offering in a burial-chamber of the Vth Dynasty at Beni Hassan,[3] and in a small chamber in the tomb-shaft of the recently discovered tomb of Hetep-heres, the queen of Seneferu, at Giza. As we have already seen in a previous report, some bones and horns of a bull were discovered in the Mekal temple at Beth-Shan in the 1927 season.

Finds in the Mekal Temple Courtyard.—The finds in the courtyard of the Mekal temple are very varied and numerous, and include the following :—(1) *Pottery objects :* (*a*) Hollow cones with flaring tops : these perhaps once had figures of some description surmounting them (compare the copper figures of bulls surmounting cones which were employed as votive offerings in early Mesopotamian times : King, *A History of Sumer and Akkad*, p. 256, figs. 62, 63). (*b*) Canaanite open pottery-lamp. (*c*) Cypriote milk-bowl with wish-bone-shaped handle. (*d*) Rim of flat dish with five gazelles following one another painted on it in dark red ; also some fragments from the same dish, with three gazelles. This dish is unique. The gazelle was sacred to the goddess Ashtoreth. (*e*) Part of a so-called pilgrim bottle with two handles. (*f*) Rather well-made figurine of Ashtoreth showing the goddess wearing a scalloped head-dress and having two bracelets on either wrist ; her feet are broken off. (2) *Basalt :* (*a*) Crude cylindrical incense altar with hollowed-out top for the incense. (*b*) Shallow dish for grinding colours : traces of some red colouring matter are still visible in it. A small lump of yellow ochre was actually found in the courtyard, but not in association with the grinder. (3) *Gold :* (*a*) Flat pendant with a tang at the top twisted over so as to form a loop for suspension. On the pendant is incised the figure of a woman who is nude except for a head-dress of Egyptian type (Plate VIII, 5). She holds the *was*-sceptre in her left hand and has her right hand outstretched. From the fact that she bears the sceptre she must be the goddess Ashtoreth, whose figure (once in the form of Antit, the warrior goddess) has often been found on

[1] Moret, *op. cit.*, p. 271.

[2] Wilkinson, *Manners and Customs of the Ancient Egyptians*, iii, pl. LX.

[3] Garstang, *The Burial Customs of Ancient Egypt*, p. 32.

the tell. (*b*) Lotus-shaped flat pendant with a loop-handle of gold wire attached (Plate VIII, 6). (*c*) Another lotus pendant, shaped somewhat similar to the second example, but with a broken tang suspension-loop (Plate VIII, 7). (*d*) A fragment of gold foil. (4) *Bronze:* Arrow-heads. (5) *Ivory:* A nice spindle-whorl with an incised geometrical design on its base. (6) *Faience and Steatite:* (*a*) A small quantity of faïence beads and pendants. (*b*) A very nice steatite ring-seal with a flower-design on its semi-spherical back, and an inscription on its base. The inscription is somewhat corrupt, and is a form of a similar inscription figured on scarabs published by Petrie, *Buttons and Design Scarabs*, pl. XI, Nos. 608–620, p. 19.[1] The inscription on the ring-seal reads something like "Gives the king devotion to Ra (?)." To the left of the text is the *ankh*-sign of life enclosed in a cartouche (Plate VIII, 3, 4). The date of the seal is the XIIIth Dynasty, that is to say, about 1780 B.C. (*c*) Blue faïence scarab with the figure of Ptah, the god of Memphis, holding the *was*-sceptre, with the signs of "life" and "stability" in front of him. (*d*) Syro-Hittite green-glazed faïence cylinder-seal bearing highly conventionalized figures of animals or birds. (*e*) Syro-Hittite blue-glazed faïence cylinder-seal with figures of two crossed stags and a geometrical design (Plate VIII, 1). (*f*) Syro-Hittite green-glazed faïence cylinder-seal with the figure of a stag, a sacred tree, and a scroll design. (Plate VIII, 2). (*g*) Syro-Hittite white-glazed faïence cylinder-seal showing a sacred tree, with a rampant animal of some kind, and also a divine figure in human form, on either side of the tree.

As will thus be noticed from the above list, the courtyard was by no means barren of finds; and the presence of the Syro-Hittite cylinder-seals here and elsewhere in the level seems to indicate some northern influence in Beth-Shan in the time of Thothmes III.

The Southern Corridor of the Mekal Temple (Plate IX).—The extreme length of this corridor is about 127 ft., while its maximum width (*i.e.* to the west of the great stepped-altar) is 25 ft. It is really one of the most impressive parts of the whole temple, and must have looked very fine in ancient times when it was newly built. As we have already seen, a flight of steps, five in all, leads up from the floor

[1] *See also* the *Ra-erdy* groups figured by Petrie, *op. cit.*, pl. XII, Nos. 638–644, p. 20.

of the courtyard to the corridor, the level of which is about 2 ft. 8 in. above the level of the courtyard. The southern corridor, containing as it did the great stepped-altar, and the *mazzebah* emblematic of the god, was certainly reserved for the priests alone, so there must have been a temple guardian stationed near the steps, doubtless in the small room behind the great altar, in order to prevent unauthorized persons from mounting them (Plate X). From the lion panel found in the temple we know that the *mythological* guardian of the temple was a fierce hunting-dog, so perhaps an actual hunting-dog was tied up to the peg inserted in the socket in the small room, the leash being of such a length as to allow the dog to reach the far side of the steps.[1] With regard to the temple guardians, we are reminded of a certain Phoenician inscription from Kition, published by Cooke, *op. cit.*, p. 66, which mentions "the men who have charge of the door [of the temple]." On the southern side of the corridor, near the west end, is a part of the great outer fort wall of the Thothmes III level. There is a drain leading from a cement-lined room inside the angle of this wall (opposite the top of the small flight of steps) to a rather deep drainage-pit, built of undressed stones, situated in a small room leading off from the corridor, a little to the south-west of the steps (*see* plan). As a matter of fact, including the room with the drainage-pit, there are four small rooms at the extreme western end of the corridor. The rooms were probably used for stores of some kind.

The Great Stepped Altar in the Southern Corridor (Plate XI).—This altar, like the rest of the temple, is made of bricks resting upon a foundation of undressed stones. It contains four steps in all, the lowest one being much broader than the upper one. There is a balustrade on either side of the steps. The overall width of the altar is 16 ft. 10 in., and the overall depth 11 ft. 10 in.; its height is about 3 ft. This structure is by far the most remarkable of its kind ever found in Western Asia. That it was connected in some way with the cult of Mekal is quite evident, for the *mazzebah* and stele of that deity were found in 1927 in the other end of the corridor in which

[1] Perhaps also a fierce hunting-dog actually guarded the entrance to the inner sanctuary. He may either have been tied up to the pole in front of the entrance or kept in the small room to the south of the pole.

the great altar is situated. Further than this, we discovered this year, near the great altar, a baetyl or small portable conical stone of basalt, 10 in. high, also emblematic of the god (Plate XII, 1).[1] Besides this we found in the room a little to the west of the altar, a hollow cylindrical cult-object of pottery, 2 ft. 6 in. high, with four holes (in pairs) near the base. Probably incense was burnt inside this object, the fumes of which passed through the holes (Plate XII, 2).

Various analogies to the stepped-altars in the Canaanite temples of Thothmes III, Amenophis III, and Seti I at Beth-Shan are seen in Egypt, as for instance at Queen Hatshepsut's temple at Deir el-Bahari, in the river temple and various tomb-chapels at el-Amarna,[2] and in private-house altars at el-Amarna (Schaefer and Andrae, *Die Kunst des alten Orients*, p. 318). Compare also the entrance stairway of the temple of Nin-khursag at Al-'Ubaid (Hall and Woolley, *Ur Excavations*, i, pl. XXXVIII).

From various Egyptian representations we see sometimes the king seated at the top of a flight of steps, and sometimes a god in a similar position. As examples of the king on the steps may be cited Narmer of the Ist Dynasty,[3] Thothmes III of the XVIIIth Dynasty,[4] and Osorkon II of the XXIInd Dynasty[5]: and as examples of the god on the steps, Osiris on the "staircase of Osiris,"[6] Osiris in the Judgment Hall,[7] an archaic deity of the

[1] It actually came from the small room behind the altar itself. *See* Contenau, *La Civilisation Phenicienne*, pp. 125, 127, on the significance of these sacred conical stones. "Masons who made pillars (?) of stone in the house of MK[L]," are mentioned in the Phoenician inscription from Kition, translated by Cooke, *loc. cit.* But the word translated "pillars (?)," *ašti*, generally means "foundations" (*see* Ps. xi. 3, in the new *American Translation of the Old Testament*). The "foundations" of stone may very well be compared with the stone foundations of the brick buildings in all our Canaanite levels on the tell.

[2] *See* Jéquier, *Manuel d'Archéologie Égyptienne*, p. 339; Peet and others, *The City of Akhenaten*, i, pl. XLII, fig. 2; pl. XXVII, fig. 2; pl. XLII, fig. 4; and pl. XXV, plan 1. These el-Amarna buildings are not unlike our temples of Amenophis III and Seti I, with which, apparently, at least in the case of the Amenophis III building, they had some indirect connection.

[3] Budge, *Osiris and the Egyptian Resurrection*, i, p. 36.

[4] Moret, *Du Caractère Religieux de la Royauté Pharaonique*, p. 252.

[5] Moret, *op. cit.*, p. 249.

[6] Budge, *op. cit.*, i, pl. opposite p. 43.

[7] *Op. cit.*, p. 42.

time of King Den (or Udimu) of the Ist Dynasty,[1] Ra,[2] and the triune god Ptah-Seker-Osiris.[3] The Egyptian evidence indicates that the god, like the king, ruled from his seat on the top of the steps, and it seems quite certain that the Canaanites of Beth-Shan also believed that their deities sometimes dwelt upon the top of stepped-altars, from which, no doubt, like their counterparts in Egypt, they ruled over their extensive domains.

Many mentions from the Egyptian inscriptions of staircases in temples might be quoted. For instance, when Piankhi, king of Nubia, came to the temple of Heliopolis, in Egypt, "he mounted the staircase which gave access to the great naos in order to look upon the god Ra."[4] The usual Egyptian name for the sacred staircase was *red*.

The Room behind the Great Stepped-Altar.—Immediately to the north of the great stepped-altar in the southern corridor of the Mekal temple is a small room measuring 14 ft. 6 in. from east to west, and 16 ft. 6 in. from north to south. It has two doors, one at the east leading into the great courtyard of the temple, and one at the west leading out directly on to the middle of the flight of steps connecting the courtyard with the southern corridor. The south wall of the room is actually the wall against which the great outside altar is built. Running along the north wall and part of the east wall of the room, on the inside, is a low *mastabah* or "seat," 1 ft. 10 in. wide, and 1 ft. 3 in. high (Plate XIII). In the south-eastern corner of the room is a sloping socket which once contained a wooden peg. As we have already stated above, it seems fairly obvious that the room was intended for the use of the temple guardian, whose duty it was to prevent laymen from mounting the steps leading from the courtyard to the corridor, and who doubtless had a fierce hunting-dog to help him in his work, the dog perhaps being tied up to the peg in the corner of the room.[5]

[1] Budge, *A History of Egypt*, i, p. 195.

[2] Max Müller, *Egyptian Mythology*, p. 35.

[3] Budge, *Osiris and the Egyptian Resurrection*, i, p. 47.

[4] Moret, *Le Rituel du Culte Divin Journalier*, p. 216. The text quoted specifically indicates the fact that the god lived at the top of the staircase. Compare the figure of Ra on the staircase shown in reference given in n. 2 above.

[5] We shall see presently how the Assyrians buried figures of dogs below their thresholds in order to repel the attacks of such evil spirits as tried to make entry into the houses.

In addition to the basalt baetyl, there were found in the room a single-spouted Canaanite lamp of pottery, a flint, and an unbored barrel-head of polished black stone.

The Great Outer Fort Wall.—Immediately to the south of the Mekal temple is the great outer fort wall enclosing the southern end of the level of Thothmes III. For a greater part of its length the wall is a double one, of a maximum overall width of 15 ft. 10 in., with small rooms inside it (*see* Plate III).[1] The small room in the west end of the double wall, that is to say, towards the left-hand side of the Plan, has cement-lined walls and floor, and contains in its north-western corner the top of the drain already referred to in another part of this report.[2] The next room to the east has a blocked door in its north wall, facing the great stepped-altar; while the room to the east of that room contains a small cement-lined circular tank, 3 ft. 6 in. in diameter, and 3 ft. 9 in. in depth; this tank has two circular depressions in it, and must have been used for water. The next room to the east contains the top of a cement drain, which drain, after running under the northern part of the wall, evidently leads into a pit (as yet undiscovered) situated below the southern corridor of the temple. The exact purpose of these two drains and the tank is not yet ascertained, but perhaps they played some part in the religious ceremonies associated with the temple, for from their close proximity to the temple we can hardly imagine them to have been put to other uses. At the east end of the outer side of the fort wall there are three great towers of a depth of 18 ft. 10 in., the average width of the two outer towers being 4 ft. 7 in., and of the inner tower 7 ft. 9 in. It was in the easternmost of the three bays formed by the towers that we found the basalt panel of the lions and dogs.

Other finds from various places to the south of the outer fort wall include the left arm and hand of a bronze figurine; part of an ear-ring of the same material; a cup-and-saucer pottery-lamp; and a blue frit scarab showing a uraeus attached to a badly made crown of North Egypt, with the bowl-shaped *neb*-sign (usually meaning "lord") in front.

[1] Where the wall is a single one, *i.e.* at the west end, the maximum thickness is 10 ft.

[2] To the south of this room is a tower, 15 ft. 6 in. wide and 5 ft. 9 in. deep (maximum).

The Panel of the Lions and Dogs. (Plate XIV.)—The beautiful basalt panel showing the figures of the lions and dogs was found in the position described above on the morning of November 20th, which day is therefore a red-letter one in the annals of the Expedition (*see* the remarks on p. 89, n. 5). This panel, which was probably originally placed against the door of the Mekal temple,[1] is sculptured in high-relief and contains two registers; it is about 3 ft. high.

(1) *Upper Register.*—This depicts a lion fighting with a dog. On the shoulder of the lion is a tuft of hair, somewhat resembling a star: the star itself is usually the indication of a superior being. The lion shows Mitannian and classic Assyro-Babylonian influences, and evidently represents Nergal, the god of plague and death. (A stele fragment indicating that Thothmes III fought against the people of Mitanni, a country to the north-east of Syria, was found this year at Tell el-Oreimeh, just north-west of the Sea of Galilee; this stele is published by Dr. Albright and myself in the *Journal of Egyptian Archaeology*, November, 1928, p. 281.) As the panel must have been set in the door of the temple, the dog thus guarded the entrance against the lion, who brought death and destruction. The dog is like the dogs employed in the hunt, the finest specimens of which are conserved for us in the splendid sculptures in the palace of Ashurbanipal at Nineveh.

(2) *Lower Register.*—This depicts the majestic lion of Nergal being attacked by a dog who is biting his back. The lion has the star-like tuft of hair on his shoulder and is growling in rage. (Compare Amos iii, 8, "The lion hath roared, who will not fear?") In Biblical times, as is seen from Jer. xlix, 19, lions were present in the Jordan Valley. Figurines of the lion have been found in various levels on the tell, and the animal in question is represented on one of the shrine-houses discovered near the northern temple (dedicated to Antit-Ashtoreth) in the level of Rameses II.[2] The famous ancient-Hebrew seal of "Shema', the servant of Jeroboam," found many years ago at Megiddo, not far north-west of Beth-Shan, shows

[1] That is to say, one of the two doors of the inner sanctuary; one door leads to the courtyard and the other door to the outer room at the north-east of the inner sanctuary (*see* Plan).

[2] Figured in the *Pennsylvania Museum Journal*, Sept., 1926, p. 294.

the figure of a raging lion (*Mitteilungen des deutschen Palästina-Vereins*, 1904, p. 2).[1] Important representations of lions are known from Sheikh Saad and Suweideh, in Transjordania, and on the famous incense altar of Taanach in Palestine (Vincent, *Canaan d'après l'exploration récente*, p. 184). Figurines of dogs came from certain levels on the Beth-Shan tell, and bricks with impressions of the paws of dogs were found in the Rameses II level (*see* the *Museum Journal*, June, 1928, p. 167, and the last paragraph but one of the present report).

Summing up the significance of the scenes sculptured on the panel, it may be said that the upper register shows the lion trying to enter the temple, and the lower register the same animal being driven away from it.

The Assyrians were in the habit of burying figures of dogs under the thresholds of their houses, so that the spirits of the dogs could repulse any evil spirits who tried to make an entry into the houses. Five dogs were usually arranged on each side of the doorway and each dog was of a different colour.[2] In the British Museum there are five of these coloured dog-figurines, with their names inscribed on their left sides, *e.g.* (1) "Hesitate not, work thy jaws"; (2) "Conqueror of the foe"; (3) "Biter of his opponent"; (4) "Expeller of the wicked"; (5) "The strong of his bark."[3] The names of the third and fourth are surely quite suitable ones for the dog on the Beth-Shan panel! Many Assyrian tablets are preserved which contain omens concerning dogs, and the following is an extract from the text of one such tablet preserved in the British Museum: "When a yellow dog entereth a palace, there will be destruction in the gates thereof. When a piebald dog entereth a palace, that palace (*i.e.* the king) will make peace with its foes. When a dog entereth a palace and someone killeth it, that palace will enjoy an abundance of peace. When a dog entereth a palace and lieth upon a bed, that palace no man shall capture. When a dog entereth a palace and lieth upon a throne, that palace shall be in sore straits. When a dog entereth a temple, the gods shall show no mercy unto the land. When a white dog entereth a temple,

[1] Cf. *Q.S.*, 1904, pp. 287 *sqq.*

[2] Budge, *A Guide to the Babylonian and Assyrian Antiquities in the British Museum*, 3rd ed., p. 239.

[3] *Op. cit.*, p. 221.

the foundation of that temple shall be stablished. When a black dog entereth a temple the foundation of that temple shall not be stablished."[1]

In the el-Amarna correspondence there is evidence that the god Nergal of the Mesopotamian town of Kuthah was worshipped in Palestine,[2] while a cuneiform seal (*c.* 2000 B.C.) found at Taanach mentions a "servant" of Nergal: "Atanakh-El, the Son of Khabsim, the servant of Nergal."[3]

Like Mekal, Resheph, and other Canaanite deities, Nergal was not only the god of pestilence but also the god of the blazing destructive heat of the sun. (The association between Resheph and Nergal is clearly shown by Albright, *Mesopotamian Elements in Canaanite Eschatology*, Paul Haupt Festschrift, pp. 146 *sqq.*) The emblem of Nergal was the lion, into which, as we see from the so-called Dibarra legends, the god of Pestilence changed himself.[4] A certain text states that on "the 18th of the month Tammuz, Nergal descends into the Underworld; on the 28th of the month Kislew, he ascends again. *Shamash (the sun) and Nergal are one.*"[5] In an exorcism in which the dual nature of the god is further indicated, it is said of Nergal: "Thou shinest in the heavens, thy place is high: great art thou in the realm of Death."[6] The exact place which Nergal occupied in the ancient religion of Beth-Shan has yet to be ascertained, but no doubt he was regarded as a form of Mekal, "the fierce devourer."

I am indebted to Père Dhorme of Jerusalem for some valuable notes on the panel, some of which I have used in this report.

Other Finds in the Thothmes III Level.—A number of rooms were found in the area to the west of the courtyard and

[1] *Op. cit.*, p. 207.

[2] Sidney Smith, *Early History of Assyria to* 1000 B.C., p. 337. In these letters the plague is called "the hand of Nergal," *see* Jeremias, *The Old Testament in the Light of the Ancient East*, i, p. 139.

[3] Sellin, *Tell Ta'annek*, p. 28; Clay, *The Origin of Biblical Traditions*, pp. 46, 47.

[4] Jeremias, *op. cit.*, i, p. 140. Nergal, the god of the Underworld, appears in the form of a winged lion on a bronze plate. Maspero, *The Dawn of Civilisation*, pp. 690, 691.

[5] Jeremias, *op. cit.*, i, p. 139. It is a coincidence that we actually found the panel of Nergal in the month of Kislew!

[6] *Loc. cit.*

the southern corridor of the Mekal temple. In one of the rooms was a drainage-pit made of undressed stones, with a cement lining covering the floor and walls of the corner in which the pit is situated. Another similar pit was found in an adjoining room, just to the north of the outer fort wall. Both pits, when discovered, were covered with rough slabs of stone.

The finds in this western area include the following: (1) *Pottery objects:* (*a*) Cylindrical drain-pipe, 1 ft. 9 in. high, with male and female joints. (*b*) Dishes with stands. (*c*) Pots with painted geometrical, palm-tree, and other designs. (*d*) The hollow cylindrical incense cult-object, 2 ft. 6 in. high (*see* above, p. 84, and Plate XII, 2). This, like the baetyl, probably originally belonged to the great stepped-altar in the southern corridor. (*e*) Small model of a pot set inside a bowl. (*f*) Pot stands. (*g*) A very nice goblet on a stand with decorations in dark red. (*h*) Two figurines of the goddess Ashtoreth, one holding a child in her arms—an unusual type (Plate XV, 1). (*i*) Part of a flat tray with loop-handle. (*j*) Pot-handle with scarab impression, showing the figure of a man with both arms down by his sides. (2) *Stone:* (*a*) Part of a limestone parapet projection of a fort wall, afterwards used as a mould for bronze daggers. (*b*) A number of flints. (3) *Bronze:* (*a*) A very nice scimitar, almost complete (Plate XV, 2). (*b*) Arrow-heads. (*c*) A small crudely made chisel. (*d*) A small chain containing several links. (4) *Ivory:* (*a*) Two inlays, one with part of incised decoration on it, and one with incised fish-scale design. (*b*) Hair-pin with incised pattern. (4) *Glass:* Broken figurine of an enceinte Ashtoreth, made of opaque-green glass covered with white glaze. The goddess wears a head-dress, and supports her breasts with her hands. (5) *Faience, Steatite, and Lapis-Lazuli:* (*a*) Faïence beads of various kinds. (*b*) Green-glazed faïence scarab with its device all but broken away: all that can be seen on the scarab are two *neb*-signs, one above and one below the missing inscription. (*c*) Light-green faïence scarab with the figure of a man holding a lotus in his right hand; his other hand hangs down by his side. (*d*) White steatite Syro-Hittite cylinder-seal showing a figure in human form with crossed arms, an antelope (?), and geometrical designs. (*e*) A Syro-Hittite or Mesopotamian cylinder-seal of lapis-lazuli. This bears the figures of

two gods and a geometrical design. The cylinder is rather small, but is well cut (Plate XVI, 4).

From the area to the east of the Temple of Mekal came the following scarabs and cylinder seals :—(*a*) Crudely made pale-blue-glazed faïence scarab, with defaced device on back. (*b*) Green-glazed faïence scarab with the name "Amen-Ra." Underneath the name is the *neb*-sign, and to the left of it a crudely made lotus (Plate XVI, 2). (*c*) A very well made steatite scarab bearing the inscription : "Ra-men-kheper (*i.e.* Thothmes III), the image of Amen" (Plate XVI, 1). (*d*) Syro-Hittite blue frit cylinder-seal showing a god holding a sacred tree in his left hand. Before him are two stags and scroll designs. (*e*) Syro-Hittite white-glazed faïence cylinder-seal showing a line of conventionally made birds with a criss-cross pattern above them (Plate XVI, 3).

Pre-Amenophis III and Rameses II Levels.

During the period under review three rooms of the Pre-Amenophis III level (1447–1412 B.C.) were found *above* and to the west of the great courtyard of the Mekal temple in the level of Thothmes III. In these rooms were unearthed a bronze dagger ; a white-glazed faïence scarab showing the figure of a lion with the *ankh*-sign of life above it ; an ivory inlay in the shape of a rosette ; and part of a rim of a pot with traces of the bases of certain figurines which were once attached to it. Another room was found above and just to the north of the small room behind the great stepped-altar of the Mekal temple.

A small amount of clearing was carried out near the fort entrance of the Rameses II level (1292–1225 B.C.), which resulted in the finding of three bricks, having respectively the impression of the toes of the left foot of a man, the impressions of the paws of a dog, and an incised anchor-like sign.

Every year's work at Beth-Shan brings forth fresh surprises, for it truly can be said that there has been no season on the site that has not furnished much new information of all kinds—information which is slowly but surely enabling us to withdraw from the mists of antiquity a good deal of the ancient history of the land of Canaan. Little by little, also, as a result of our excavations, we are beginning to understand better the old religions of the country ; in which—at Beth-Shan—Mekal, Nergal, Resheph, and Ashtoreth in her many forms, all played so large a part.

EXPLANATION OF THE PLAN AND PLATES.

PLATE II.—Tell el-Hosn. (Beisān, the Beth-Shan of the Old Testament.) View of south side of Tell, showing the great "cutting" made by our excavations. To left background is the great northern cemetery, and in the foreground an arm of the River Jalud. (Looking north.)

PLATE III. —Map of Thotmes III level as it appeared at end of the 1928 season :—

(1) The courtyard of the Mekal Temple, with the three tables for cutting up the roasted sacrifices.
(2) The inner sanctuary of the Temple with the two altars for cult objects and meat offerings.
(3) Room with altar of sacrifice.
(4) Room with oven for roasting sacrifices.
(5) Well, 43 ft. deep, for supplying water to the Temple.
(6) Southern corridor of Temple.
(7) Great stepped-altar, 16 ft. 10 in. wide, in southern corridor.
(8) Small room with two *mastabahs* or "seats"—doubtless used by Temple guardian. In one corner of the room is the socket for the peg to which, doubtless, an animal (evidently a guardian dog) was tethered.
(9) Room with *mazzebah* or conical stone emblematic of the god.

PLATE IV.—Mekal Temple, Thothmes III level. General view. In the foreground are the brick pedestals on the walls. To their right the great courtyard in the foreground, and behind it is the stepped-altar. In background is the Roman theatre and the modern village of Beisān. (Looking south-west.)

PLATE V.—

(1) Mekal Temple. The two altars in the inner sanctuary : the stepped one of brick being for cult-objects, etc., and the stone one for meat-offerings. (Looking north.)
(2) Mekal Temple. Sacrificial altar south of the inner sanctuary. On the top of the altar is the blood-channel, and in front of it some steps. On the edge of the second step is a wooden beam which replaces the one which was originally in that position. (Looking south.)

PLATE VI.—Mekal Temple, southern part. In the foreground is the circular oven for roasting the Temple sacrifices, and to the left the *mazzebah* or stone emblematic of Mekal himself. The man shown in the photograph is standing just inside the entrance to the inner sanctuary, which is on the extreme right. (Looking west.)

PLATE VII.—Mekal Temple. View of southern part of the great courtyard, showing steps leading up from the corridor to the southern corridor. To the left of the steps is the small room in which was apparently stationed the

Temple guardian. The entrance to the inner sanctuary is on the extreme left near the pole. To the left are the three brick tables in the courtyard for cutting up the animals sacrificed and roasted in the Temple precincts. (Looking south-west.)

PLATE VIII—

(1) Syro-Hittite faïence cylinder-seal, showing the figures of two stags and a geometrical design. Thothmes III level.

(2) Syro-Hittite faïence cylinder-seal, showing the figure of a stag, a sacred tree, and a scroll design. Thothmes III level.

(3) Steatite ring-seal with an inscription on its base. The text is corrupt and reads something like: "Gives the king devotion to Ra (?)." XIIIth Dynasty, *c.* 1780 B.C. Found in the Thothmes III level.

(4) Back view of the ring-seal, showing flower design.

(5) Gold pendant showing the figure of the goddess Ashtoreth wearing a head-dress, and holding the *was*-sceptre in her left hand. Thothmes III level.

(6) Gold pendant, lotus-shaped, with suspension loop of gold wire. Thothmes III level.

(7) Gold pendant, lotus-shaped. Thothmes III level.

PLATE IX.—Mekal Temple. The great southern corridor. On extreme right-hand is the southern outer fortification wall. To the left is a part of the great stepped-altar. In the background are the Mountains of Gilead, with the Jordan Valley in front. (Looking east.)

PLATE X.—Mekal Temple. The *mazzebah*, or sacred conical stone, emblematic of the deity, in the northern side of the eastern end of the great southern corridor. (Looking north.)

PLATE XI.—Mekal Temple. The great stepped-altar, 16 ft. 10 in. wide overall, in the southern corridor. To the left background is the intrusive silo of the Amenophis III level. (Looking north-west.)

PLATE XII.

(1) Baetyl or small portable conical stone of basalt, 10 in. high: an emblem of the god Mekal. Thothmes III level; doubtless originally on the great stepped-altar.

(2) Hollow cylindrical cult object of pottery. (*See* p. 84.)

PLATE XIII.—Mekal Temple. View of room behind the great stepped-altar in the southern corridor, showing *mastabahs* or "seats." (Looking north.)

PLATE XIV.—The panel of the lions and dogs found on 20th November, 1928, in the Thothmes III level on the tell. The upper register shows the pestilence- and-death-god Nergal (in the form of a lion) trying to enter the Temple: the lion is being attacked by the guardian dog. The lower register shows

the vanquished lion being finally driven out of the Temple. The lion, in both instances, has a tuft of hair on its shoulder. Mitannian and classic Assyro-Babylonian influences are seen in the sculpture. Height of panel about 3 ft.

PLATE XV.—

(1) Pottery figurine of the goddess Ashtoreth holding a child in her left arm. Thothmes III level.

(2) Bronze scimitar. Thothmes III level.

PLATE XVI.—

(1) Steatite scarab bearing the inscription "Ra-men-kheper (*i.e.* the throne-name of Thothmes III), the image of Amen." Thothmes III level.

(2) Faïence scarab with the name "Amen-Ra." To the left is a crudely made lotus. Thothmes III level.

(3) Faïence Syro-Hittite cylinder seal showing a line of conventionally made birds with a criss-cross pattern above them. Thothmes III level.

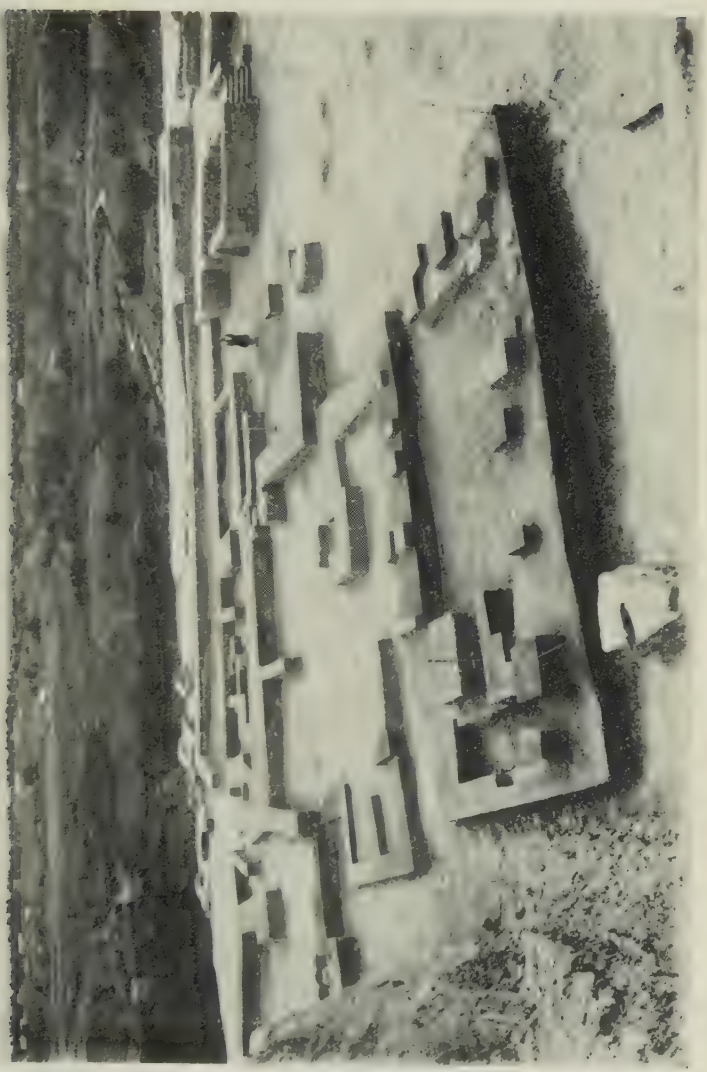
(4) Lapis-lazuli Mesopotamian or Syro-Hittite cylinder seal, showing figures of two gods, and a geometrical design. Thothmes III level.

Note.—The new-looking appearance of the Mekal Temple in the above photographs is accounted for by the fact that a certain amount of conservation work has been carried out on the building, in order to preserve it from the rain, etc.

General View of Tell el-Hosn (Beisān, Beth-Shan). (Looking North.)

[*To face p.* 94.

PLAN OF THE TELL. THOTHMES III LEVEL.

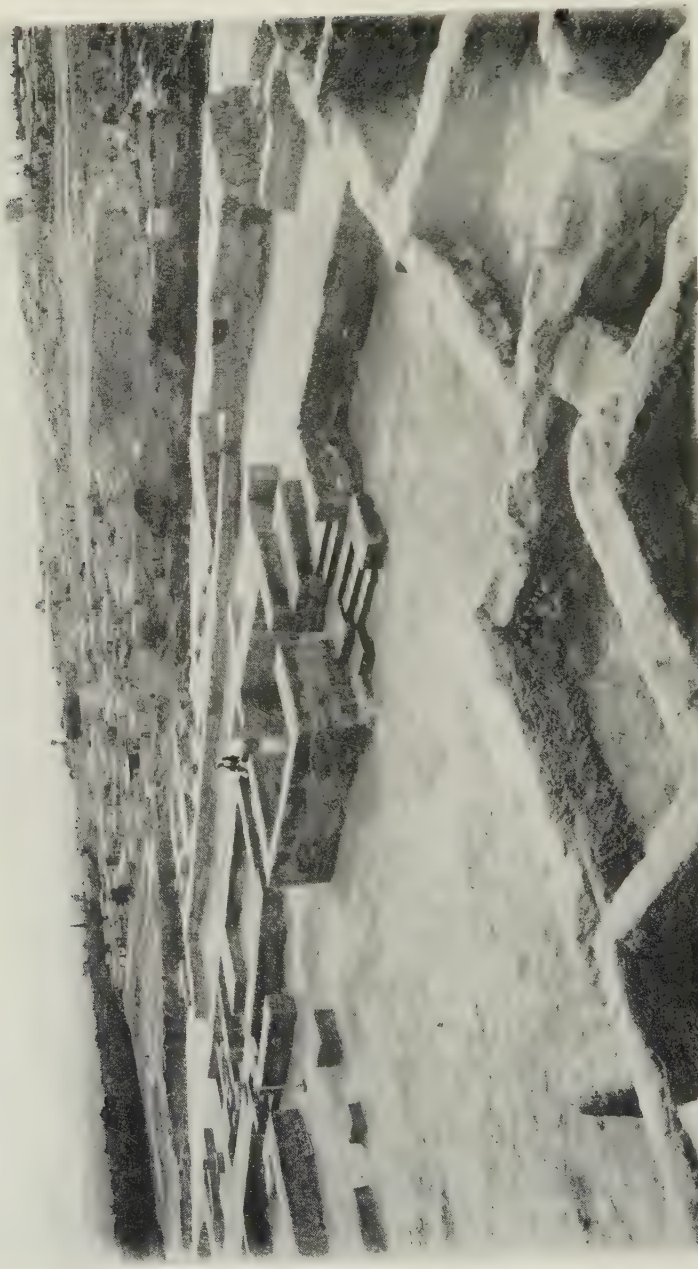


MEKAL TEMPLE. (LOOKING SOUTH-WEST.)

1.—Mekal Temple. (Looking North.)

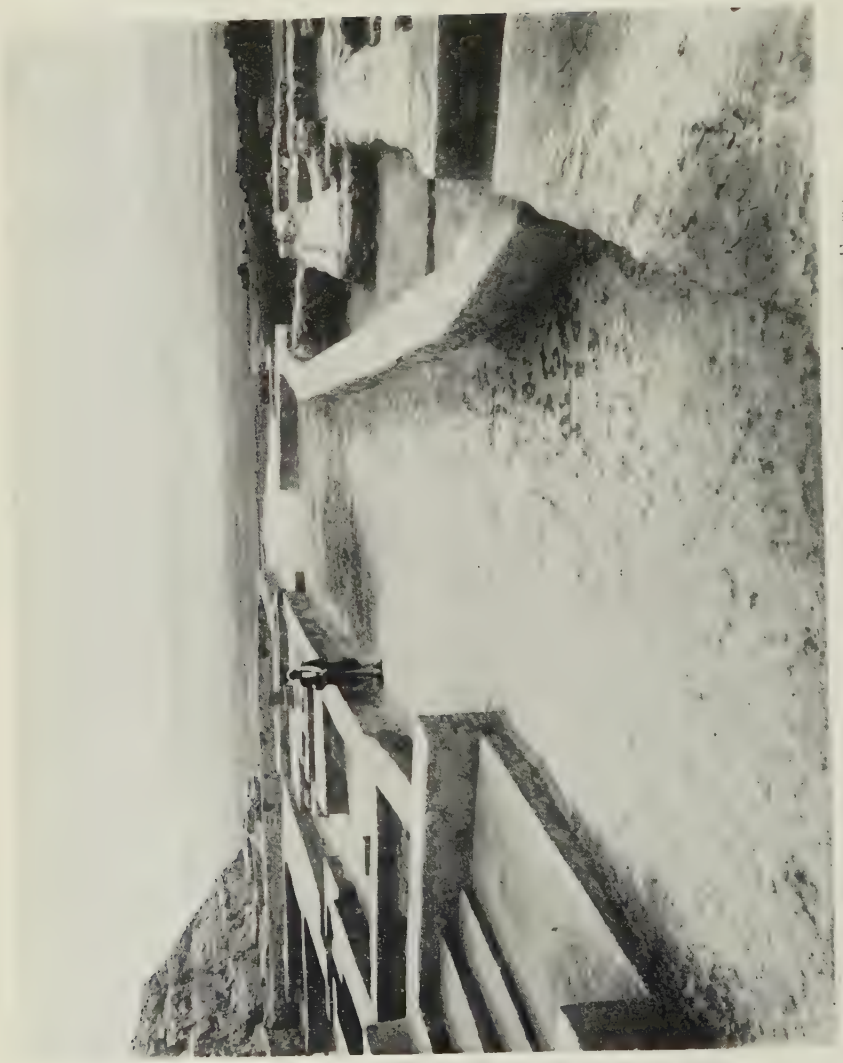
2.—Mekal Temple. (Looking South.)

MEKAL TEMPLE: SOUTHERN PART. (LOOKING WEST.)

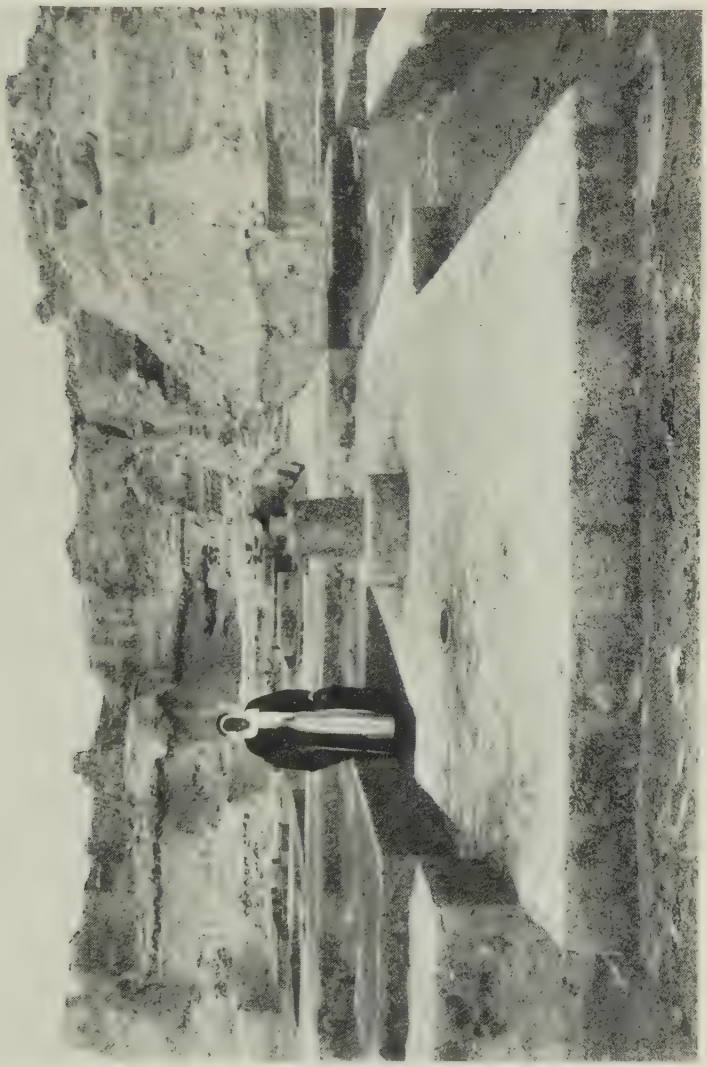


MERAL TEMPLE. (LOOKING SOUTH-WEST.)

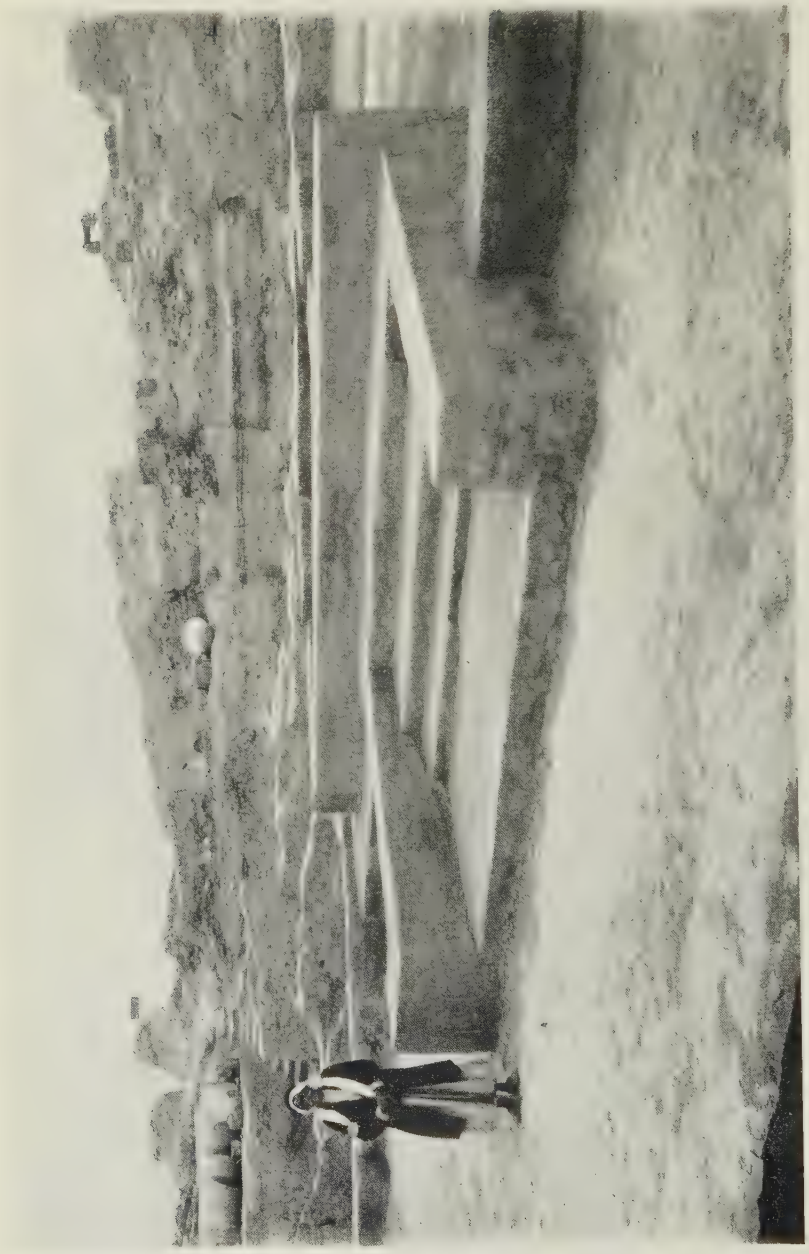
MISCELLANEOUS FINDS. THOTHMES III LEVEL.



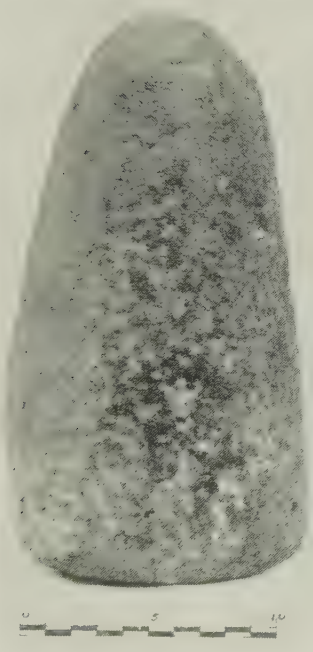
MEKAL TEMPLE. THE GREAT SOUTH CORRIDOR. (LOOKING EAST.)



MEKAL TEMPLE.—THE MAZZEBAH. (LOOKING NORTH.)



MERAL TEMPLE. THE GREAT STEPPED-ALTAR. (LOOKING NORTH-WEST.)

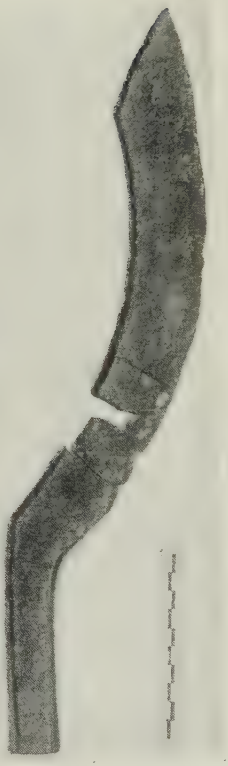


1.—Baetyl. 2.—Cult-Object.

Teothmes III Level.

MEKAL TEMPLE. ROOM BEHIND THE STEPPED-ALTAR, WITH "SEATS." (LOOKING NORTH.)

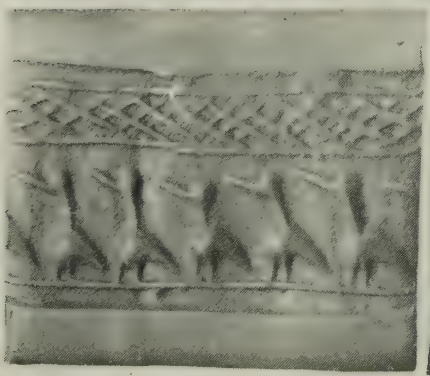
PANEL OF LIONS AND DOGS.



1.—Ashtoreth Figure. 2.—Scimitar.

Thothmes III Level.

1 2



3 4

1 and 2.—Egyptian Scarabs.

3 and 4.—Syro-Hittite Cylinders.

Thothmes III Level.

BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM.

WORK OF THE SEASON 1928–9.

On his return to Palestine in December the Director resumed operations on the Ophel site for the P.E.F., and was principally engaged in this work until the end of the year.

Through the generous co-operation of Yale University, the School has been able to resume work at Jerash on the same site as last season, namely, the ground east of the Church of St. Theodore and the Fountain Court cleared last year. Here lies another large church, of which the outlines are clear, and beyond it other buildings extend down the slope to the "Colonnade Avenue" which connects the "Forum" with the North Gate.

At Jerash the Director will have the assistance, as last year, of Mr. A. H. M. Jones, Fellow of All Souls College, and also of a new student, Mr. R. W. Hamilton, Senior Demy of Magdalen College. On behalf of Yale University, Dr. Clarence Fisher will be present for part of the season; his experience of the architectural problems which are encountered on such a site will be of the greatest value. It is hoped that Yale may also send one or more students to take part in this excavation. Towards its share of the cost of the work the School has already received grants of £200 from the Schweich Fund of the British Academy, and of £50 from All Souls College; and desires to express its gratitude for this generous help.

At the Shukba Cave work is for the present suspended, in view of a more urgent piece of exploration elsewhere. Early in the winter the Department of Antiquities had news of the discovery of a cave deposit near Athlit, and after making preliminary examination which showed the great importance of the site, offered the British School the opportunity of clearing the cave. Accordingly

Miss Garrod, on her return from a remarkably successful winter-season among the caves of Iraq, has begun to excavate this site, with the help of Miss Elinor Ewbank, of Somerville College, Oxford, and Miss Mary Kitson-Clark, the student nominated to the School by the University of Cambridge. Later, if the season permits, there will be further work at the Shukba Cave, in conjunction with the American School for Prehistoric Research, which was represented last year by Mr. and Mrs. Woodbury from Yale. The cost of the School's work in Palestinian caves has been most generously undertaken by Mr. Robert Mond.

Mr. F. Turville-Petre, of Exeter College, Oxford, who took part in the excavation of the Tabgah Caves in 1925, hopes to resume work in Galilee in the spring, and has been readmitted student.

At Khan el-Ahmar, the clearance of the Church and Monastery of St. Euthymius, begun last summer by Rev. D. J. Chitty and Mr. and Mrs. Jones, will (it is hoped) be completed this year, including the clearance of the building which covers the tomb of the saint, and the exploration of the great crypt beneath the Church, which appears to have been itself the original Church before it was converted into the refectory.

Other students of the School this season are as follows:—Mr. J. Mauchline, nominated by the University of Glasgow, has been chiefly occupied with the topography and antiquities of the Hebrew period. Mr. Avi Jonah, from the Hebrew University of Jerusalem, and the School Librarian, Mr. C. N. Johns, of St. George's College, assisted the Director in excavations on Ophel already described. Mr. F. J. Hine, of Jesus College, Oxford, who was assistant to the American expedition at Beisān in 1927 and 1928, has been prevented by ill-health from returning to Palestine this winter, but hopes to come out later and devote himself to the examination of the human remains from recent excavations in Palestine and other parts of the Levant.

Among former students of the School, Mr. G. M. FitzGerald is still engaged in preparing for publication his section of the results of excavation at Beisān; and Lieut.-Commander Buchanan, who took part in the work at Jerash in 1928, has been temporarily again in Trans-Jordan.

During the winter four Open Meetings were held at the School in the Palestine Government Museum, and were well attended. Papers were read as follows :—

February 11.—*Excavations at Jerash.* The Director.
„ 18.—*Prehistoric Research in Caves in Western Judaea and Kurdistan.* Miss Garrod.
„ 25.—*Work on Ophel,* 1927–8. The Director.
March 5.—*Turkish Art in Palestine in the Sixteenth Century.* Dr. L. A. Mayer.

Lectures have also been given on the work of the School at the Hellenic Society in London, and at Oxford, by Mr. A. H. M. Jones; and at Cambridge by Professor Myres.

A graphic summary of the work at Jerash, by Mr. Jones, appeared in *The Times* of January 2nd, 1929, and was followed by an appeal for funds by the Chairman of the School's Council (January 7th) and emphatic commendation of the School's services to learning by Field-Marshal Lord Allenby (January 10th), and Sir Frederick Kenyon, Director of the British Museum (January 11th).

Through the courtesy of the Department of Antiquities in Palestine, it has been possible to distribute a considerable number of duplicate specimens from the School's excavations, to Universities and Museums which are qualified by their support of the School to participate in such distributions. A further distribution will be made during the present year, and it is hoped that institutions desiring to receive a share of these specimens will lose no time in enrolling themselves among the supporters of the School.

John L. Myres,
Chairman of the Council.

THE STRUCTURE OF THE MOSAICS FROM THE CHURCH OF ST. EUTHYMIUS AT KHAN EL-AHMAR.

By E. Hanbury Hankin, M.A., D.Sc.;
with a Note by Professor J. L. Myres.

Excavations conducted by students of the British School of Archaeology in Jerusalem in 1928, and already described in the *Q.S.* (1928, pp. 175–8), revealed a series of mosaics on the floor of the Church of St. Euthymius, which raise afresh the question how far the Saracenic geometrical decoration was indebted, either for its principles of construction, or for its decorative detail, to the later stages of Graeco-Roman art, as represented in these and similar mosaics, such as the great roundel uncovered by the British School at Jerash in 1928, which bears the date 526 A.D. The mosaics from the Church of St. Euthymius are not dated, but, as has been already noted in the *Q.S.*, both the Director of Antiquities in Palestine, Mr. Richmond, and Père Savignac, whose experience in these matters is very great, are of opinion that they are of rather late date. One reason for this opinion is the maturity of their geometrical design; and as it is in this respect that they seem likely to throw light on the relations between late Graeco-Roman and early Saracenic art, an opportunity has been taken to consult on this point Dr. E. Hanbury Hankin, whose essay on *The Drawing of Geometric Patterns in Saracenic Art*, No. 15 of the Memoirs of the Archaeological Survey of India (Calcutta, 1925), deals very fully with the structural methods of the craftsmen. Dr. Hankin has been so good as to examine the copies made by Mrs. Jones, last year, of the mosaics from Khan el-Ahmar, which are deposited now in the office of the P.E.F., and the letter which follows gives the results of his study. In a subsequent note Dr. Hankin has called attention to the fact, established by Captain Creswell of the Egyptian Archaeological Department, that the first truly geometrical Saracenic design occurs in the Al-Hakim Mosque, built between 980 and 1012 A.D.,[1] whereas the excavations of Sarre and Herzfeld

[1] Hankin, Memoir No. 15, Pl. I, fig. 4.

at Sāmarrā have shown that "the geometrical interlaced straight-line ornament had not yet been born there" when Sāmarrā succeeded to the heritage of Baghdad about 836 A.D.[1] This leaves a long interval between early Saracenic design and the more or less geometrical construction-lines of the mosaics at Khan el-Ahmar. But that interval was, on the one hand, a period of artistic and architectural nihilism under Saracen rule; on the other, of intensely conservative repetition of late Graeco-Roman forms, within the Byzantine Empire. There was therefore, at all events, little or nothing to prevent either the survival of Graeco-Roman design, or its adoption by craftsmen working for Saracen masters, so soon as decorative craftsmanship came to be appreciated by Saracens at all. Dr. Hankin's letter follows, and speaks for itself.

JOHN L. MYRES.

"*The Red House, Greenford, Middlesex.*
"*8th February*, 1929.

"DEAR PROFESSOR MYRES,

"As you suggested, I have inspected the drawings of the Euthymius designs. It appears to me to be highly probable that you are correct in your view that they represent a very interesting early stage in the evolution of Saracenic art. Chitty and Jones, in their paper on the subject in the P.E.F. *Quarterly Statement*, quote the opinion of the Director of Antiquities and of Père Savignac, that they are of later date, because (1) of the decadent drawing of animals, and (2) the maturity of the geometrical design. Of course I am only able to express an opinion on the second point. This possibly may interest you, and is as follows:—

"(1) Certain of the medallion designs are singularly crude and primitive. A five-pointed star drawn in a circle, the so-called Star of David, as shown in Fig. 1, occurs in quite ancient work in Palestine. In this star there are five points on the circumference of the circle at equal distances from each other. These points are joined by straight lines thus forming the star. It was a very small advance to mark off six points instead of five on the circumference and use these for drawing a six-pointed star. This occurs in one of the medallions, Fig. 2. It was also a small advance to divide the

[1] Captain Creswell, quoted by Dr. Hankin, Memoir No. 15, p. 2.

circumference by ten points, thus forming a ten-pointed star as occurs in another medallion, Fig. 3. This star is the same as two 'Stars of David' on top of one another.

"(2) The medallion reproduced in Plate I of the paper of Chitty and Jones, perhaps, at first sight, may suggest maturity of design. But in reality, as indicated in Fig. 4, it is quite easily drawn by means of the ordinary hexagonal lattice. If one were to use this lattice in making a design for a medallion, the most obvious thing to do is to put a six-pointed star in the centre. The next obvious step is to put a diamond outline on each point of the star, as seen in this design. The remaining lines follow almost mechanically in view of the fact that the pattern has to be enclosed in a circle.

"(3) The hexagonal lattice was also used for the design of a border of a pavement. This particular design is, however, practically the simplest possible of the hexagonal patterns. It consists of six-pointed stars alternating with hexagons. It is shown in Fig. 5. Thus again there is no evidence of maturity of design.

"(4) The same pavement shows an octagonal pattern. It consists of octagons in contact. This is shown in Fig. 11 of Plate II of my Memoir. This again is the simplest possible of octagonal patterns.

"(5) In one of the mosaics the surface was divided into squares and an irregular octagon was drawn in alternate squares. This is bad art, that is, bad Saracenic art. It is not allowable to draw an irregular octagon that looks like a failure to draw a correct octagon. It is, however, just possible that the fault was not with the designer, but with the workman who had to make the mosaic. This is not very probable, as the other mosaics seem so correctly executed.

"(6) A number of the patterns show interlacing lines. These are primitive. In such designs the artist attempts to get aesthetic effect by the interlacement or the curving of his pattern lines. No attention is paid to the spaces left between the lines. As geometrical art evolved, attention was paid to these spaces. Aesthetic effect was produced by the symmetry of the pattern spaces and by their symmetrical arrangement.

"(7) In drawing curved lines the Euthymius artists made use of the compass. Their use of it was excessive and resulted in very unpleasing patterns. For instance, Fig. 6 shows a border design

made of interlacing circles. An attempted improvement on this pattern, shown in Fig. 7, consists of circles of two sizes interlaced. Such a pattern might be permissible if the space to be decorated was limited by such lines as A and B, for the pattern then would fit the space. But the space to be decorated is limited by the lines C and D. Thus the pattern is a misfit. It breaks another rule. In Saracenic art, two pattern spaces of the same shape occurring in one pattern must either be of identical size or of widely different size. In Fig. 7 it seems to me there is not sufficient difference of size between the two circles. This may be compared to the circle limiting the medallion of Plate I, Fig. 1, of the paper of Chitty and Jones. This circle is interrupted at intervals by small circles which couple it to the outside square border. There is here a wide difference of size between the large and the small circles and the aesthetic effect is good. One of the medallions, illustrated in Fig. 8, shows a singularly crude example of use of the compass, having a very inferior decorative effect. The interest of this use of the compass is, that in the earliest known Saracenic decoration, according to Captain Creswell of Egypt, there was much compass-work. Captain Creswell has shown me photographs of this decoration. According to my recollection it was often very pleasing. Complete circles occurred but rarely. Curved lines were obtained by drawing parts of circles from different centres. Thus this early Saracenic work showed a great advance on the compass-work found in St. Euthymius.

"(8) The only design that caused me any hesitation was that of the centre-piece of floor under dome shown in Fig. 2 of Plate I. Of course this is not a Saracenic design, but it struck me that possibly the artist had seen a Saracenic pattern. But two reasons against drawing this conclusion may be stated. First, the number of truncated rhombs in the circle is twenty-eight. No pattern is known to me having a star of this number of rays. Secondly, in a true Saracenic pattern, a line having formed part of one pattern space, as AB in Fig. 9, runs on to form part of another pattern space as BC: that is, AC is a straight line. The lines of two neighbouring pattern-spaces are not independent, as shown in Fig. 10, where AB is not in line with BC. The line ABC may be described as a bent line: such lines are very rare in Saracenic art. Examples may be found in J. Bourgoin, *Les Elements de l'Art Arabe: le Trait des Entrelacs*, Plates 115, 120 and 159. The rhombs of the Euthymius

pattern are so inclined to one another that AB and BC form a bent line.

"(9) Lastly, it may be noted that the Euthymius designs contain no trace of the class of patterns that I have called 'geometrical arabesques.' Captain Creswell's photographs showed the presence of the simpler forms of this class of patterns in early Saracenic art.

"It is only fair to the Euthymius artists to add that all the above drawings by me are from memory.

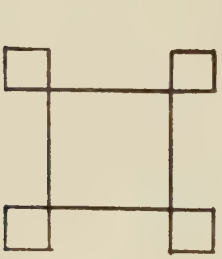
"Yours sincerely,

"E. H. HANKIN."

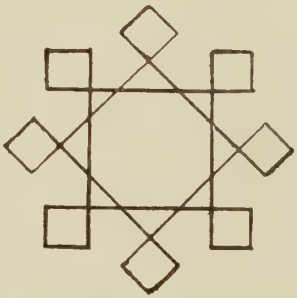
"*Further Note on a Mosaic from Jerash.*

"10*th March*, 1929.

"I went to the office of the P.E.F. yesterday and saw the drawings of the Jerash mosaic. So far as their geometrical basis is concerned they seem to me to be, like those of St. Euthymius, precursors of Saracenic design. In making the chief medallion the artist had drawn a square with small squares at each corner.



1



2

Two such outlines superposed on each other form the main part of the pattern. On this he has put curved lines obviously drawn with a compass. This is very simple and elementary geometric design. But with what very pleasing details he has filled in his pattern-spaces! His skill in getting aesthetic effect seems to be far in advance of his geometrical knowledge. "E. H. H."

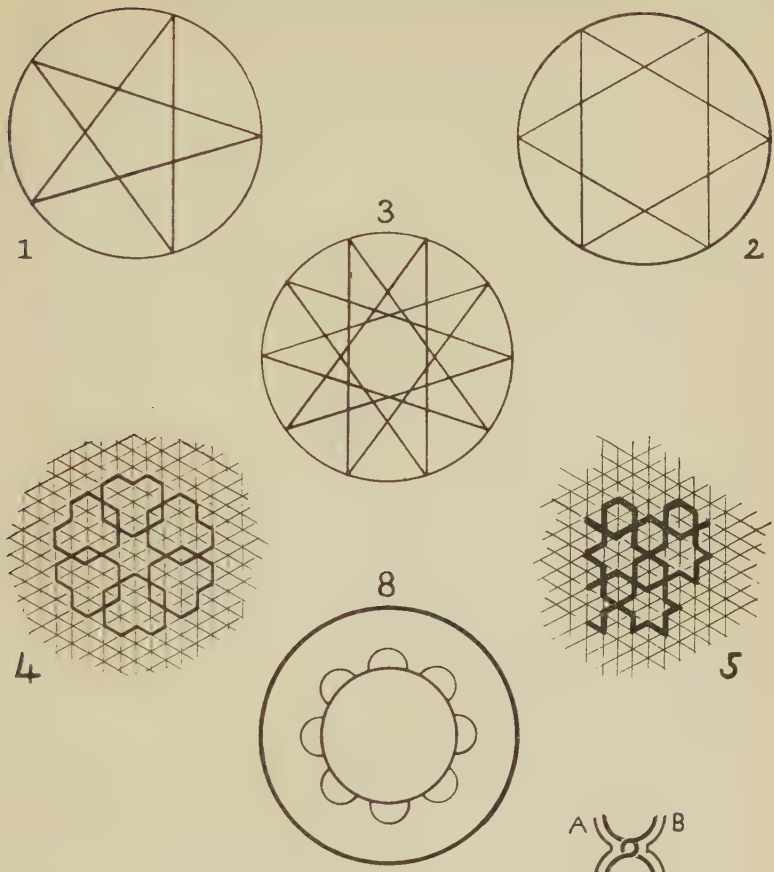


Diagram to illustrate construction of mosaic designs.

A FIND OF STONE SEATS AT NABLUS.

By G. M. FitzGerald, M.A.

The stone seats or chairs which are described below were brought to light in September, 1927, on the property of Shukri Eff. el Masri at Nablus, when the owner was digging a pit in the garden behind his house, which is situated on the south side of the road in the new part of the Gasariyeh quarter, at the eastern end of the town. This garden, or yard, is bounded on the south-west by a stone retaining wall, beyond which is another property, a garden or orchard, of which the ground-level is considerably higher.

On being informed of the discovery, the Director of the Department of Antiquities requested the British School of Archaeology in Jerusalem to make investigations, and the present writer (then Assistant-Director of the School) accordingly went to Nablus and carried out a small excavation, with eight workmen, on September 26th and 27th, 1927.

The work was facilitated by the kind assistance of Major Badcock, District Officer, and of Mr. Nasri H. Fiani and Faiz Effendi, of the Government service. Tools were supplied by the Department of Public Works. Photographs were taken by Mr. C. N. Johns of the British School.

From the account given by the owner, it appeared that in digging his pit he had come upon eight seats, Nos. 15–22 of our list, lying overturned on a stone pavement, and had removed them, together with some of the pavement-slabs, to the surface. His motive in so doing was the hope, common to all his kind, of finding buried gold. The remains of the pavement lay about a metre below the ground-level, the seats having been just under the surface. One seat had been left lying in the pit, and two more were imbedded in debris at the southern end of it. After clearing and removing these (Nos. 13 and 14) we set about enlarging the pit on the south, working on the N.W.–S.E. line along the wall bounding the property, and as near to it as could safely be permitted. The edge of what remained of the pavement soon disappeared, running westward under the wall. Towards the same side we found the fallen seat

shown on the extreme right of Fig. 1 (Plate XVII), but it soon became evident that there was nothing more to be found by enlarging the pit to the west.

Meanwhile a seat had been found standing at the S.E. corner, and eventually we discovered nine seats standing side by side, the three southernmost disappearing under the wall, as shown in Plate XVII, Fig. 1. As they stood they were seen to form part of a somewhat irregular semicircle, which doubtless continued under the boundary-wall, where it was impossible for us to excavate further. Two more fallen seats (Nos. 11 and 12) lay in front of the standing row, near the end furthest from the wall. The position of these and of the other fallen seats made it perfectly clear that there had originally been at least one row in front of that which was still standing. Excavation was continued for 2 metres S.E. behind the seats towards a lime-pit (in which we were assured nothing had been found), but no trace of another row appeared, nor was any pavement found at the back of the standing row when the original ground-level was reached.

The seats themselves are each formed of a single block of the local stone, which, as the workmen informed me, is found about Mount Gerizim, and have either been dressed with a five-toothed tool or left rough. They vary in size, some being wide enough for two people, while others are rather chairs than seats. In the list below, the dimensions of Nos. 15–19 are given as being typical. All the seats are straight-backed and without arm-rests, but most are hollowed out in front, so as to enable the feet of the sitter to be drawn back. It will be noticed that Nos. 15, 16 and 19 are narrower in front than at the back, the narrowing being effected by cutting away part of the seat diagonally on one side, so as to adapt them to the curve of the semicircle.

The inscriptions, which are discussed below, are all carved on the backs in position to be read by a person facing the row of seats.

List of Seats, Etc.

I.—*Standing in the Pit* (*the Nos. reading from the left of Fig.* 1 (Plate XVII)).

Seat No. 1. Inscribed ΒΕΡ(Ε)ΝΙΚΙΑΝΟC ΙΟΥCΤΙ
ΝΟΥΕΥΞΑΜΕΝΟCΑΝΕ
ΘΗΚΑ

Seat No. 2. Inscribed ΙΟΥCΤΥC = (*i.e.* Justus, son of
ΜΑΡΚΕΛΟΥ Marcellus.)

,, ,, 3. Inscribed ΜΑΤΡΥC
ΕΥΞΑΜΕΝΗ

(This is the only feminine form found ; the stone is somewhat weathered, but the final ΝΗ was carefully examined, and did not seem accidental.)

,, ,, 4. Inscribed ΙΟΥCΤΟC

,, ,, 5. Inscribed ΙΟΥCΤΙ
ΝΟΥ

,, ,, 6. Uninscribed

,, ,, 7–9. The backs of these could not be disengaged from debris under the boundary-wall.

II.—*Lying in Pit.*

Seat No. 10. Could not be disengaged from under the wall.

,, ,, 11. Inscribed ΙΟΥCΤΟC
ΡΟΜΑΝΥC

(In front of Nos. 1 and 2).

,, ,, 12. Uninscribed. (Lying by No. 11.)

,, ,, 13 and 14. Uninscribed. (In front of Nos. 7–9.)

III.—*Removed from Pit.*

Seat No. 15 (now in the Jerusalem Museum).

Inscribed [Ι]ΟΥΛΙCΕΥ
[ΞΑ]ΜΕΝΟCΑΝΕ
CΥ
ΥΛ
ΟΥΤΑΤ

[Ι]ΟΥΛΙC no doubt stands for Julius. The stone is a good deal weathered, and the latter part of the inscription illegible.

Dimensions.—Total height of back ... 72 cms.
Height of back from seat... 36 ,,
Depth of seat ... ... 32 ,,
Width of seat at back ... 48 ,,
Do. front ... 30 ,,
Thickness of back ... 7 ,,

Seat No. 16 (Plate XVII, 3). Inscribed **BOYBAC**

Dimensions.—Total height of back ... 78 cms.
Height of back from seat... 42 ,,
Depth of seat ... ... 27 ,,
Width of seat at back ... 82 ,,
Do. front ... 69 ,,
Thickness of back ... 9 ,,

,, ,, 17 (Plate XVII, 4). Inscribed **ΦPOTINAC**

(Perhaps for Frontinus.)

Dimensions.—Total height of back ... 68 cms.
Height of back from seat... 32 ,,
Depth of seat ... ... 27 ,,
Width of seat ... ... 55 ,,
Thickness of back ... 10 ,,

,, ,, 18 (Plate XVII, 4) (now in the Jerusalem Museum).

Inscribed **ΠPICKYC** (Priscus.)
ЄYΞAMЄ
NOCЄΘHKA

Dimensions.—Total height of back ... 77 cms.
Height of back from seat... 38 ,,
Depth of seat ... ... 33 ,,
Width of seat ... ... 43 ,,
Curve cut back below seat from front ... ... 5 ,,
Below seat to cut-back (downwards) ... ... 6 ,,
Thickness of back ... 7 ,,

Seat No. 19. Inscribed ΙΟΥΛΙΑΝΟC

Dimensions.—Height of seat ... ... 35 cms.
Height of back ... ... 34 ,,
Depth of seat ... ... 30 ,,
Width of seat at back ... 50 ,,
Do. at front ... 25 ,,

Seats Nos. 20–22. Uninscribed.

IV.—*Inscribed paving-slabs (removed from pit).*

A. Inscribed ΚΥΡΑΤΟC

Dimensions.—45 × 41 × *c.* 10 cms.

B. Inscribed CABEIN

C. Inscribed KA

D. Inscribed ΠΟ⊽

Dimensions.—87 × 45 × *c.* 18 cms. (The biggest slab found.)

E. Inscribed O

F. Inscribed GIΛ

(Unsymmetrical slab, the sides measuring 49, 47, 52 and 59 cms., respectively.)

The inscriptions are roughly executed and are not of a character to indicate a precise date. Though all in the Greek script, they contain a number of Roman names (somewhat carelessly spelt), which prove that they belong to the Imperial period. All the names are such as might naturally be borne by persons of the poorer sort, or even by slaves, and it seems not improbable that these seats may have been set up by members of some guild, or *collegium*, of artisans.

The words εὐξάμενος ἀνέθηκα clearly indicate that the seats were regarded as votive offerings. This formula in its Greek form is far less common than the Latin dedicatory inscriptions, such as *ex voto posuit*, to which it almost exactly corresponds.[1] It is unfortunate that there is no indication of the deity in whose honour our seats were set up.

[1] Daremberg-Saglio, *Dict. Ant.*, art. "Votum" (Toutain).

1. Stone Seats. (Looking South.) 2. Stone Seats and Pavement Slabs removed from the Excavation.
3. Stone Seat, No. 16. 4. Stone Seats, Nos. 17 and 18.

[*To face p.* 108

Objects of all sorts and kinds were habitually devoted to the gods.[1] Thrones were often set up in temples, but apart from these there are instances of seats bearing dedicatory inscriptions. At Rhamnus two stone chairs were found in the vestibule of a temple, one dedicated to Themis, the other to Nemesis,[2] and four other chairs from the same site bear each a part of an inscription in honour of Dionysus.[3] At Sparta one Soixiadas, who probably lived about the 1st century, set up a seat to the goddess Orthia,[4] perhaps for the benefit of one of the spectators of the boys' contests at her sanctuary. A Latin inscription from Valencia[5] speaks of the dedication of a statue of Hercules, with a base, an altar, and benches (*subsellia*).

The purpose for which the seats at Nablus were set up must remain obscure. The fact that they seem to have stood in two rows in semicircular formation naturally led us to look for some object, such as an altar or statue, in the direction towards which the seats faced, the north-west. It was not possible to carry the excavation more than 5 metres in that direction, but, at any rate within that distance, there was no sign of any object round which the seats might have been grouped, and it is very probable that the pavement did not extend so far. The absence of any such structure would be explained if we could suppose that a statue and a tripod-base, which were found at Nablus in 1882, had occupied this position. From the well-informed accounts of these finds in the *Z.D.P.V.*[6] it would appear that the statue represented the huntress Artemis; the tripod-base was adorned with six carved panels, on one of which are Artemis, Apollo and Leto; on another, Demeter; the remaining four representing scenes from the labours of Heracles and of Theseus. The connexion between these objects and our seats is by no means established, for though they are reported to have come from the

[1] *Id.*, art. "Donarium" (Homolle).

[2] C. Wordsworth, *Athens and Attica* (1855), p. 32 (with illustration).

[3] *Ath. Mitth.*, IV (1879), p. 284 *sq.*

[4] *B.S.A.*, XIV (1908), pp. 103 *sqq.*; XVI, p. 43 *sq.*

[5] *C.I.L.*, II, 3728.

[6] *Z.D.P.V.*, VI (1883), pp. 230 *sqq.* (Guthe); *Id.*, VII (1884), pp. 136 *sqq.* (Schreiber). See also *P.S.B.A.*, VI (1884), pp. 182 *sqq.* (Clermont-Ganneau), and *Q.S.*, 1885, pp. 95 *sqq.* (L. Oliphant). (The latter, writing in 1885, speaks of two male statues.)

foot of Mount Gerizim (the provenance thus according well enough, as far as it goes), it is stated that they were found about 4 metres below ground-level, whereas our seats lay almost immediately below the surface. This discrepancy might, however, be explained by the higher level of the property adjoining that of Shukri Eff. on the south-west.

It is to be hoped that an opportunity may soon be found of resolving, by further excavation, the questions raised by these finds.

It only remains to add that no small objects of archaeological interest came to light. Some ribbed sherds of the Roman or Byzantine period and a few roof-tile fragments were the only pottery found in the pit.

NOTES ON JEWISH INSCRIPTIONS.

By A. H. M. Jones, Fellow of All Souls College, Oxford.

I.—The inscription incompletely recorded by Père Abel in *Revue Biblique*, 1927, p. 254, No. 4, runs as follows :—

(on the cornice) ἀγαθῇ τ̣ύ̣χ̣[ῃ]

ὑπὲρ τῆς τῶν σεβαστῶν σωτηρίας Μητρᾶς Μητρᾶ ἱερώμενος ἐξ, ἐπαγγελίας τῇ κυρίᾳ πατρίδι τὸ ἄγαλμα ἐκ τῶν ἰδίων ἀνέθηκεν.

II.—I must apologize for the obscurity of my note (*Q.S.*, October, 1928, p. 188, No. III) on another inscription published by Père Abel (*Revue Biblique*, 1927, p. 253, No. 3). I had not noted that I had two additional fragments of the inscription which he had not. The reading, as completed by these fragments, runs (*see* photo) :—

(on the cornice) [Ἀγαθ]ῇ τύχῃ ἔτο[υς . . .]

[ὑπὲρ τῆς τῶν σε]βαστῶν σωτηρίας [Ἀσκ]λη̣π̣[ιόδωρος] Μάλχου τοῦ Δημητρίου [ἱε]ρώμεν[ος Καισα]ρος Τραιανοῦ ἐξ ἐπαγ[γελ]ίας ἄγαλ[μ]α Διος Ὀλυμπίου τῇ πατρίδ[ι] ἀ[νέ]θηκεν.

As I remarked before, the name Ἀσκλη̣πιόδωρος is not certain, other variant terminations being possible.

GREEK INSCRIPTION FROM JERASH.

[*To face p.* 110.

NOTES ON RECENT EXCAVATIONS.

The American excavations at Tell Beit Mirsim were conducted in 1926, March–June, and in 1928, April–June, and accounts of the results have been published by Prof. Albright and President Kyle.[1] So successful were the results that it is hoped to resume work next year. The site is identified with the ancient Kirjath Sepher, on the ground that it is the only Tell occupied during both the Bronze and Iron Ages, within the region required, and of appropriate importance. The four upper strata (A–D) have been studied in detail. The lower levels (E, F) are left for the next campaign, though it is already observed that the pottery of the oldest stratum (F) is in general identical with Jericho II, *i.e.* towards the close of the 3rd millennium, the age when other cities of the hill-country were founded. Stratum D is of the Hyksos period, and a very clear distinction admits of being drawn between this and stratum C. The value of the criteria for Palestinian archaeology is very properly emphasized. Whereas D associates itself with Tell el-Yahudiyeh and the pottery of later Middle Bronze (1800–1600 B.C.), Mycenaean ware becomes relatively abundant in C, and there is a general relative poverty compared with the older stratum. The D city seems to have been densely populated and strongly fortified; it was destroyed, and for some time remained unoccupied. The C city in turn was destroyed, and its fortifications completely demolished. A new city (stratum B) was built at once, and there was no gap between its culture and that of C. Three periods could be distinguished in B: (1) decadent Late Bronze; (2) Early Iron I with "Philistine" vases; and (3) transition to Early Iron II. The extension of Philistine influence into South Judah is dated in the first half of the 12th century; and the absence of foreign pottery which precedes this is explained on the view that the

[1] Albright in the *Bulletin of the American Schools of Oriental Research*, Oct., 1928, and in the *Zeitschrift für die Alttest. Wissenschaft*, 1929, pp. 1–16. President Kyle, of Xenia Theological Seminary, writes in *Bibliotheca Sacra*, Oct., 1928. Father Vincent gives a summary in *Revue Biblique*, Jan., 1929, pp. 103 *sqq.*

Israelite invasion (stratum B) was followed by a period of disorganization of trade routes; and that there was little interest in trade. (Albright dates the Israelite invasion at about 1265 B.C., the period of Egyptian weakness.) City B was destroyed by Shishak, but city A had a long history. It was thickly populated, and four dye-plants, which had been in use for a long time, threw light upon the industrial importance of the city.

Among the "finds," the most interesting has been the serpent-deity (Bronze Age III), which recalls the prominence of serpents in cults from Crete to Elam.[1] In City C were five figurines of the nude mother-goddess, with the spiral locks of the Egyptian Hathor, and with lotus and other flowers in her outstretched hands. In City B was a small limestone house-altar with four "horns," and novel Astarte-types. One of them, "a hollow figure, clasps a dove with outspread wings to her bosom between her pointed breasts"; it is unique for Palestine, and naturally recalls Aphrodite of Paphos. Besides vases in the form of animals and little chariots (*cf.* those found by Petrie at Jemmeh), stratum A reveals traces of the use of writing: a sherd with the letters *b-th* (probably the Hebrew measure *bath*), another inscribed "to Uzzio" (לעזיו), jar-handles "to the king, Hebron," and, above all, a beautifully engraved seal "to Eliakim the servant of Yokin" (לאליקם נער יוכן), in whom Prof. Albright sees "unquestionably" king Joiachin (*i.e.* B.C. 597). The fall of Tell Beit Mirsim is thus dated at the catastrophe which befell Judah not when Joiachin was deposed, but during the last Chaldaean invasion (*c.* 588). It is pointed out that there are other Judaean sites which were occupied in the 7th century, but exhibit no traces of post-exilic occupation.

Prof. Albright in the *Z.A.T.W.*, and Principal Kyle in *Bibliotheca Sacra*, emphasize respectively the archaeological and the biblical aspects of the work at Beit Mirsim. On this two remarks may be permitted: (1) The archaeological evidence is a masterly piece of argumentation, based on numerous data and upon points

[1] Commenting on the American excavations at Beth Shemesh, Vincent (p. 112) draws attention to an Astarte *maquette* of the Hathor type, with lotus stalks, and a couple of serpents on her hips which seem to encircle her body and neck. Two other serpents climb the edge of the figurine and face the head of the goddess.

of likeness and contrast. "Perhaps" and "probably" have to be far more frequently in our minds when we compare the extraordinarily precise harmony of archaeology and history in these articles with Father Vincent's objective and dispassionate survey of the evidence from the purely archaeological point of view. (2) It is possible to harmonize the archaeological data and *some* of the biblical data—*some* but not *all*. Thus, opinions differ as to the probable dates of the exodus and conquest on the basis of the biblical evidence; and when the fate of Beit Mīrsim is associated with Shishak's invasion and the last Chaldean invasion, it is surprising that there is nothing to show how the place fared in the stormy periods between those two events, when South Judah was attacked by one or other of its nearer foes. After all, the relatively slight extent of excavation hardly justifies dogmatic conclusions; and since Beit Mīrsim had already proved itself so valuable a site, it is to be hoped that much more will be done in the next campaign in extending the work, and in verifying conclusions which, in the present knowledge of Palestinian archaeology, can hardly be regarded as other than provisional.

Sir Flinders Petrie's excavations at Tell Jemmeh (Gerar) are reviewed by Father Vincent (*Revue Biblique*, 1929, pp. 92 *sqq.*) and Dr. Hempel (*Z.A.T.W.*, 1929, i, pp. 62 *sqq.*). Both recognize their success and the value of the positive results that have been gained; and both offer various criticisms, the latter, in particular, mistrusting some of Petrie's dating. The question of the introduction of iron is involved, as also the "Philistine" pottery. The carnelian seal (*Q.S.*, 1928, p. 211, דרימש) Vincent would read as "Eliakim son of Y-m-sh" (בריכיש). Hempel doubts the sacral interpretation of the interesting building in the Third Stratum, though it has a certain resemblance to the building at Tell en-Nasbeh which Prof. Badé regards as an Israelite sanctuary. His objection is that it is hardly likely that the building should also have been used in Stratum Four as the residence of an Assyrian Governor. He also draws attention to the empty deposits under its north-west and south-east walls; moreover, in Stratum One the lamp-deposits are scanty; and he asks whether we have a further development in symbolism, namely, infant foundation-sacrifices were first replaced by lamps, and then these in due course were no longer used, and the spaces remained empty.

Father Vincent also gives a brief survey of Sir Flinders Petrie's work at Tell Far'a. Its situation is an important one, and it must have played no small part in the history of Judah. Whether it goes back beyond the latter part of the Bronze Age has yet to be proved; its importance in Roman-Byzantine times is self-evident from the numerous remains on the surrounding plain. Its cultural connections were with Egypt and the Mediterranean rather than with the hill-country of Palestine, and it would seem that the Pharaohs of the XVIIIth Dynasty turned their attention to it from the first, and having got possession of it, fortified it. The usual female figurines were found; but one seated male figure, with arms extended and curved, as though to welcome or protect, may be a god. Vincent compares the Beisān god, and a bronze figurine from Transjordan (now in the Museum of Montserrat). In the necropolis to the east and north-east of Far'a were found trenches filled with bodies, arranged in no evident order, with some offerings and arms. Vincent suggests that these were not the graves of fallen warriors or the victims of some epidemic, but the burial places for successive generations of the members of families or clans. Finally, there was discovered a fine rock-tomb with part of a couch of bronze, and other appurtenances; it is of Egyptian workmanship. We shall look forward to the publication by Sir Flinders Petrie and Dr. Starkey of the results of an excavation so well and successfully pursued. We may note, in passing, that Father Vincent considers that the real name of this ancient site—which is freely identified with Beth-Pelet—has yet to be found.

At Tell Jerisheh, north of Jaffa, excavations have been conducted by Dr. E. Sukenik, under the auspices of the Union College. Popular talk speaks of it as the "Hill of Napoleon," and while Napoleon certainly fought in the neighbourhood of Jaffa, this fantastic name is at least an excellent illustration of the way in which modern tradition attaches itself to ancient sites. Father Vincent (*loc. cit.*, p. 113 *sq.*), from a survey of its surface, is inclined to think that the ancient city flourished only during the 2nd millennium B.C., though Dr. Sukenik appears to believe that its history goes back to a more remote date. From Vincent's summary, and from an account given in a Hebrew journal and translated in the *Jewish World* (Nov. 22nd), we gather that traces of a conflagration at the close of Bronze Age III point to a cataclysm which

may no doubt be due to the Philistine invasion. Beneath this are Aegaeo-Mycenaean sherds. There were remains of a double gate, like the gates found before the war at Gezer and Beth-Shemesh, and more recently in Shechem. Among the pottery are types which have not previously been found in Palestine; and there were vessels which for workmanship and artistic form attest the archaeological richness of the Tell, if the excavations can be continued. It is much to be hoped that the directors of the Hebrew University will be able to pursue work at a site which shows from the results already obtained how important its history must have been.

In the course of the excavations by Dr. Sukenik on behalf of the Hebrew University, which have been carried out on the southern part of the site of the Beth Alpha Synagogue in Galilee, it is reported that a mosaic was discovered with representations of the signs of the zodiac. There were also representations of ritual objects used in the synagogue, and illustrations of scriptural scenes. From inscriptions in Greek and in Jewish-Aramaic it appears that the mosaics date from the reign of the Emperor Justin of the 6th century A.D. If so, it is evident that the Galilean synagogues flourished much later than has hitherto been supposed; although from a report in the *Prager Presse* (Feb. 28th), it appears that the synagogue itself was not all of one date. From this source we learn that the well-preserved mosaic has representations of the Ark, the seven-armed candlestick, the *lulab*, trumpets, lions, etc. In the zodiac the seasons are symbolized by angel-like figures. One of the most interesting and novel of the scriptural scenes, so it is said, is the sacrifice of Isaac, with Jewish inscriptions describing the incident. Other zodiacs have previously been found in the synagogues uncovered at Ain Dok near Jericho, and (mostly destroyed) at Kfar Bir'im, north of Safad. (*The New Judaea*, Feb. 25th, p. 94.)

We understand that permission has been granted by the Transjordan Government for an archaeological exploration, the first of its kind, of the ruins of Petra—the "rose-red city, half as old as Time."

A Jerusalem correspondent of the *Manchester Guardian* (*M.G. Weekly*, Feb. 8th) states that "flints of late palaeolithic and transitional types, discovered at Wady el-Moghara, in the neighbourhood

of a large cave opposite Athlit, south of Haifa, have caused the postponement of quarrying of stone for the Haifa harbour, the Government having acceded to the request of the Department of Antiquities to be allowed to complete investigations of the cave. The site has already proved to be of great importance to archaeologists, and excavations are being continued to lower strata, while shards found on the surface show that the site was occupied in Roman and Byzantine times." It appears to be one of the most interesting prehistoric sites yet discovered, and its situation at the mouth of a valley, easily accessible to the sea and to the hill-country, as also its admirable strategic situation, suggest that it was of considerable importance even in the earliest times. A number of finely worked bones were discovered, including a representation of a bovine animal, also a necklace of green stones, and numerous pestles and mortars in basalt.

Under the direction of M. Virolleaud, excavations at Baalbek have produced unexpected results, the most valuable being the discovery, 500 metres south of the acropolis, of an immense column more than 24 metres in height, and therefore rivalling those of the great temple of Jupiter. It would appear that the French excavators have come upon a hitherto unknown temple which, it is supposed, was dedicated to Mercury.

At Sakkarah, in Egypt, M. Jéquier discovered native statuettes representing Assyrian or Semitic deities, with high cylindrical head-dresses with horns, notably a seated Ishtar. They were apparently of the 7th century, and were found far from any habitation. Their arms had been cut off, and sometimes also their heads and feet. It is supposed that they belonged to the age of the Assyrian domination over Egypt, and that when Psammetichus I restored Egypt and its ancient cults, he purified the temples. These statuettes were mutilated to make them useless, and were then cast far away from the dwellings. (*Le Temps*, Dec. 23rd.)

Several sensational reports of archaeological discoveries have been circulated during the last few months, the most fantastic being that of the discovery of Solomon's favourite wife, an Egyptian, and Solomon's account of her death ! Scarcely less intriguing are other reports that "a well-known archaeologist" has located the position of the lost Ark of the Covenant somewhere in a little valley on the slopes of Mount Nebo ; or that a search is to be made for it

on Mount Ararat, with a view to having it exhibited at the Chicago World's Fair in 1933 !

In the February Bulletin of the American Schools of Oriental Research, Prof. Albright summarizes last year's work. He comments upon Mr. Guy's interesting discovery at Megiddo of the large stables capable of accommodating nearly 200 horses. A similar structure was found at Tell el-Hesi by Bliss; and in both cases the period is considered to be that of Solomon. Prof. Albright remarks that "the biblical statements with regard to the construction of towns for the maintenance of the chariots and horses of Solomon (1 Kings ix, 19; 2 Chron. viii, 6), *often considered erroneous*, are now proved to be essentially correct, though the numbers may be overestimated." I do not know the authority for the words I have italicized; where doubt has often been expressed is over another matter.

As to the Beth-Shan bas-relief (*see* p. 87 above), Prof. Albright observes: "no monuments of even remotely comparable artistic value, aside from some of Egyptian origins, have hitherto been discovered in the pre-Hellenistic strata of Palestine." He questions the "gigantic dog." He notes that the foundations of a fort-tower (*migdōl*) found at Beth-Shan are the first ever to be unearthed, though such towers are often represented in Egyptian mural reliefs.[1]

Of Tell Beit Mirsim, he remarks that during the Amarna age great quantities of Late Helladic pottery were imported into Egypt. "It will be interesting to Aegean archaeologists to know that the earliest examples of this ware so far found in Egypt and Palestine belong to the reign of Tuthmosis III, and cannot be dated later than about 1450 B.C. The great mass of this imported pottery dates from the 14th and 13th centuries B.C., just when the Achaean thalassocracy is shown by the Boghaz-keui tablets to have flourished. The importation of Mycenaean ware stops completely not less than half a century before the introduction of Philistine ware, as shown by the work at Tell Beit Mirsim, at 'Ain Shems, at Ashkelon, and at Tell Jemmeh."

At 'Ain Shems (Beth-Shemesh) the most important discovery was that of a rich Bronze-Age necropolis with much beautiful pottery.

[1] *See*, however, Vincent, *Canaan*, p. 46 *sq.*; for an Egyptian plan, *see* Offord, *Q.S.*, 1919, pp. 175 *sqq.* (after Clédat).

Of the Fund's work at Ophel, Prof. Albright observes that "material of value for our knowledge of the ancient fortifications of the city on the western side of the hill before the end of the Maccabaean period, has been discovered, and some evidences for the location of the much disputed site of Millo and Acra."

Tell el-Fāri' (Fara), which Prof. Albright suggests is admirably adapted for Sharuhen, one of the centres of the Hyksos after their expulsion from Egypt, flourished from at least as early as the Middle-Bronze period down to about the 3rd century A.D. "In one tomb of the Iron Age were found the remains of a bronze couch and canopy made of tubular bronze framing, into which wooden poles fitted. To the same tomb belonged a beautiful silver ladle with the handle in the form of a girl swimming, egyptianizing in style."

Prof. Garstang's soundings at et-Tell, east of Bethel (Ai) showed occupation to the beginning of the Late Bronze Age, but no subsequent reoccupation—this is in harmony with its destruction by Joshua.

That a sacred stone or *maẓẓebah* was found at Balāta, the ancient Schechem, now proves to be erroneous. Two massive city-walls have been unearthed, to each of which belonged a monumental gateway; and the acropolis (the Millo of Judges ix) has been identified.

S. A. C.

NOTICES OF PUBLICATIONS.

An account of the American Palestine Exploration Society is given by Mr. Warren J. Moulton in vol. viii of the *Annual of the American Schools of Oriental Research*. The reference is to the old Society, which issued statements at irregular intervals in 1871–7, and published a few brief bulletins. Its object was, above all, to perpetuate the brilliant work of Dr. Edward Robinson, whose *Biblical Researches* had won for him world-wide fame. Though hampered financially, and otherwise, the American Society did good work, and it is well that the present generation should be

reminded of what it succeeded in achieving. Dr. Selah Merrill's expeditions east of the Jordan and in Galilee were especially successful.

In Circular No. 2 of the Oriental Institute of the University of Chicago (Aug., 1928), Prof. Breasted surveys its various undertakings. An account is given of the Megiddo expeditions which, thanks to the generosity of Mr. John D. Rockefeller, Jr., is working at a systematic exploration and excavation of the ancient "Armageddon." Substantial living and working quarters have been erected so that the Staff can live there all the year round; and, like "Chicago House" at Luxor, young Orientalists can be housed and trained. The mound is cleared in a thorough-going manner by steel dump-cars which are filled from a chute. It is stated that the stone bearing the name of Shishak, which, it will be remembered, was found in one of the rubbish-heaps of the German expedition of over a quarter of a century ago, presupposes an impressive monument, the approximate size of which would be originally some 10 feet high and 5 feet wide. Some account is also given of a "cylinder seal not yet definitely dated, but evidently in regular use in the administration of a temple in the ancient city." It is engraved with a representation of an Egyptian Pharaoh reclining in a palanquin carried on the shoulders of his bearers and preceded by two religious standards—one Egyptian, surmounted by the image of the god Anubis, the other Asiatic, bearing a symbol of the Asiatic moon-god. It seems that the Egyptian occupation of Megiddo must have been a prolonged one, and Prof. Breasted thinks that the seal points to "the periodic appearance of an Egyptian sovereign in the temple ceremonies in Palestine long before the erection of a Hebrew temple there."

Apropos of this, mention may be made of a pair of Egyptian goddesses, one of them the lion-headed war-goddess Sekhmet—the other is obscure—which come from the district of Urfa, in North Syria. The inscription is of a military officer, Smendes, and it is conjectured that the figures belonged to one of the generals whom Shishak left behind in Palestine or Syria (Spiegelberg, *Orient. Lit. Zeit.*, 1929, no. 1, col. 14).

The American excavations at Beth-shan naturally attract widespread attention. Father Mallon in *Biblica* (Jan.–March), commenting on the remarkable bas-relief representing the combat

between the lion and dog (*see* above, p. 87, and Plate XIV), agrees that it is a *chef d'œuvre* comparable to the best products of ancient art. The interpretation remains somewhat of an enigma, though certainly the lion was the animal of Nergal, the god of the underworld, and the star on its shoulder should point to some mythological subject. The same writer contributes notes on some sites in the Eastern Ghor; of these Tell el-Medesh, on the W. Nimrin, has been identified with Bethany, but this is doubtful. Beth Nimrah has been placed at Tell Nimrin, but this is Roman-Byzantine, and the fine and ancient Tell el-Belēbil to the east has a better claim. The adjoining Tell el-Mi ṭāḥ was, however, once of greater importance, and its remains go back to the first age of Bronze (*c.* 2500–2000 B.C.). It is here that Mallon is disposed to see the original Beth Nimrah, which was perhaps deserted in favour of Tell el-Belēbil, because of the superior strength of the latter.

The upper part of an Egyptian royal statue acquired by the British Museum is described, with a photograph, by Dr. Hall, in the *Journal of Egyptian Archaeology*, Nov., 1928, p. 280. It is of Egyptian workmanship, and seems to be a conventional representation of Ramesses II, or possibly Meneptah. "It is an interesting example of the official royal portrait, set up in some town of Palestine as a mark of the Egyptian imperium, as it might be at Beth-shan or at Megiddo or Gaza." The same journal (pp. 281–7) publishes a fragment of an Egyptian royal inscription discovered in January, 1928, on Tell el-'Oreimeh, which is now being identified with the ancient Chinnereth, whence the Sea of Galilee received its name. According to Messrs. Albright and Rowe, the inscription refers to the expulsion of men of Mitanni (Naharaim, North Syria), and, from what is known of the relations between Mitanni and Egypt, it is possible that it belongs to the early hostilities, and, it may be, to the reign of Thutmose III (middle of 15th century). The site itself is of the end of the Bronze Age and the beginning of the Iron Age; and a potsherd containing the incised representation of a stag, found in 1925 by the Rev. Charles Bridgeman (the discoverer also of the Egyptian inscription), proves to belong to a cult-object similar to those at Beth-shan of the 15th–13th centuries. The authors remark that so many Egyptian royal stelae and monuments have already been found in Palestine that, as excavations continue, many more will come to light. Royal stelae must have

been erected in great numbers, and garrison towns like Beth-shan must have contained quantities of royal and private inscriptions. "Excavations in Palestine will certainly yield a vast amount of material bearing on the history of the Egyptian Empire in Asia."

The site of Gibeon has recently been discussed anew, and its identification with Tell en-Naṣbe strongly supported. Meanwhile, Dr. Jirku (in the *Journal of the Palestine Oriental Society*, viii, no. 3, pp. 187 *sqq.*), defends the old identification with the district of ej-Jib. In the next number (viii, no. 4, pp. 203 *sqq.*), Prof. Steuernagel argues that Penuel should be placed at el-Emṭawaḳ (at Tell and Khirbet el-Emrāmeh, on the Upper Zerka). His conclusion rests upon a close analysis of Gen. xxxii, 23 *sqq.*, and Steuernagel discusses and refutes the earlier suggestions of Merrill, Dalman, etc. el-Emṭawaḳ is distinguished by its dolmens and other indications of ancient sanctity, and it is pointed out that Penuel was evidently an old renowned place of cult, the habitation of a hostile "Elohim." In the same issue, Dr. A. Alt contributes epigraphical notes on the history of Christianity in Palaestina Tertia. Of special interest is his discussion of a Christian inscription (now at el-'Arish), which M. Tonneau had ascribed to the very early date, A.D. 234–5. Not only is there no evidence for so early a spread of Christianity, but Dr. Alt has evidence that it persisted much later than had been supposed, and he dates the text to 669–70 A.D. This is twenty years later than the latest Greek inscription of the district, and is new proof that the decline of culture here was no sudden death, but a lengthy process. Unfortunately, it is not known precisely from what part of South Palestine the inscription originally came.

In the same number, Prof. Albright discusses the 21st century Egyptian inscribed sherds cursing all rebels, to which reference was made in the *Q.S.*, 1928, p. 216 *sq.* He considers that no epigraphic discoveries since the Tell el-Amarna Tablets have cast so much light on conditions in early Palestine and Syria. He accepts the view that Jerusalem is among the places named, and remarks: "There can be no question whatever that Jerusalem was inhabited during the last centuries of the 3rd millennium, though its antiquity has often been greatly exaggerated of late." Its two chiefs are mentioned, one of whom has a name that can be read Yaḳir-'ammu, "(My) people is honourable," an excellent Amorite type of name. His conclusion is that "nearly all of the

personal-names, as well as many of the place-names, belong unmistakably with the so-called Amorite names of the Ist Dynasty of Babylon, which reigned contemporaneously with the XIth and the first half of the XIIth in Egypt." There are no non-Semitic names, whereas after the barbarian irruptions at the fall of the XIIth Dynasty, Palestine and Syria were divided up among a congeries of non-Semitic peoples. Moreover, from the names of the rebellious places, it is very probable that Egypt considered Phoenicia and Palestine, but not the rest of Syria, as falling within her direct sphere of interest. Albright goes on to urge that "there was a well-defined period of Amorite invasion and settlement in Palestine, probably in the last third of the 3rd millennium." Interesting articles on Palestinian folk-lore are contributed to these numbers of the *Journal* by Messrs. T. Canaan and St. H. Stephan.

Some reference has previously been made to Dr. Gustavs' careful study of the personal names on the cuneiform tablets discovered years ago by Sellin, at Taanach (*Zeit. d. Deutsch. Pal. Vereins*, li, heft 3).[1] Gustavs finds four names in Elu—evidence of the old El religion; but the much-discussed name, Aḥi-ia-mi, often equated with the name Aḥijah, or with Aḥiam (2 Sam. xxiii, 33), can hardly contain the divine name Yahweh. In the name Ishtar-ya-shur the goddess is not the Ashirat (= Asherah) who is mentioned in one of the Taanach letters, but Ashtārt, and in view of the numerous figurines of a goddess found in the course of the excavation of the Tell, Dr. Sellin concluded that the naked Astarte was the actual goddess of the city. The name Ashtart-yashur seems to mean: "Astarte looks graciously." It may be added that the letters from Taanach apparently belong to the same period as the Amarna letters, most of which are of the age of Amenophis III. (About one-third may belong to the early part of the reign of his successor, the "reformer" Ikhnaton.) Prof. Albright, it is true, would place the Taanach tablets earlier, in the reign of Amenophis I or Thutmosis I, but in the absence of any evidence as yet adduced to support this view, Gustavs retains the usual view. In conclusion, Gustavs comments on the very mixed population which the personal names imply, though it is possible that in the hill-country away from the bigger towns there was much more homogeneity.

[1] The work is reviewed, with useful criticisms, by J. Lewy in the *Orient. Lit. Zeit.*, 1929, no. 3, col. 172.

In the same issue, Dr. Galling publishes a small golden seal from Bagdad, inscribed with the names of Shu'al, son of Elisha (שׁעל בן אלישע). On palaeographic grounds he dates it between the 7th and 6th century, and asks whether it may have been the seal of some Judaean exile in Babylonia. The seal bears the representation of a horned animal, identified with the *Bos primigenius*, on either side of which is a palm-tree. The whole is typical Babylonian conventional work. Hence it was perhaps made and put on sale without a name, so that the purchaser, whoever he was, might have his own name inscribed thereon. It may be added that the seal has the double line above and below, such as is often found on Israelite seals, as the late Clermont-Ganneau observed, but this in itself is no safe criterion. The animal, too, bears a certain resemblance to the rather later seal of Tamak-el (תמכאל), for which see G. A. Cooke, *North Semitic Inscriptions*, 150, no. 4 (*Corp. Inscr. Sem.*, ii, 94). In heft 4 of the *Z.D.P.V.*, Jirku denies that Gilead was one of the Assyrian provinces of Tiglath-pileser III, the reading upon which this is based being definitely impossible (viz. Gal-kar).

In the *Journal Asiatique*, Oct.–Dec., 1927, M. Isidore Lévy discusses some long-known Aramaic inscriptions from Egypt (Cooke, *North Semitic Inscriptions*, nos. 71, 72, 75, etc.), and argues that they are closely modelled upon funerary Egyptian texts. They thus bear witness to the profound influence of the Egyptian religion —in particular, the Osirian religion—upon the Aramaic-speaking Jews (or Palestinians) settled in or near Memphis in the Persian and Greek ages.

The practice of strewing sand on both festive and solemn occasions is discussed by Prof. Maurice Canney (*Journ. Manch. Egypt. and Orient. Soc.*, no. xiv). It is met with all the world over, even in Palestine, where layers of sand were found by Bliss at Tell el-Ḥesy, and in Sinai, where a layer of ashes was beneath the temple of Serabit, excavated by Sir Flinders Petrie. Both sand and ashes seem to have been used as a protection against evil influences in foundation ceremonies, and to ensure long life and good luck. The *Jewish Chronicle* (March 1st) also notes the Jewish custom of eating an egg dipped in ashes on the eve of the Feast of Ab.

S. A. C.

NOTES AND QUERIES.

Mr. Henry Sulley, architect, of 21, Arboretum Street, Nottingham, writes to the P.E.F. as follows :—

"My attention has been called to the interesting articles which are appearing in *The Daily Telegraph* upon 'The Bible and the Spade.'

"A very interesting question has been raised by Mr. Mortlock as to why Hezekiah's Tunnel took such a circuitous course. I agree with him that neither of the two theories put forward by M. Clermont-Ganneau and Dr. Macalister are a satisfactory explanation. Since those who have inspected the tunnel mention a cleft in the rock at the point where the excavators met, it seems to me that this cleft is the explanation of the course taken by the excavators in forming this tunnel. Probably the cleft extended from the Virgin's Fountain to the Pool of Siloam, and a small quantity of water would at times trickle through ; if so, Hezekiah's workmen, commencing at each end, would enlarge this channel to its present dimensions for the purpose he had in view in cutting off the waters from the use of an enemy. Hence its erratic course.

"I am still unconvinced that Dr. Macalister's excavations prove that Mount Ophel is the City of David. Further excavations may reveal the cleft in the rock leading up to what I believe is the hill of Zion, the City of David, up which David's men crept and took possession of the city.

"*March* 21*st*, 1929."

THE

PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

The office of the P.E.F. will be closed during the month of August, re-opening on Monday, September 2nd. Letters posted to the office during that month will be retained by the Post Office, but matters of special urgency may be addressed to Dr. E. W. G. Masterman (Hon. Sec. P.E.F.), St. Giles' Hospital, Camberwell, S.E.5.

The Sixty-fourth Annual General Meeting of the Fund was held on Monday, July 1, at Burlington House, W., Sir Charles Close, K.B.E., &c., presiding. There was a good attendance, and a lecture, with illustrations, was given by the Honorary Secretary, Dr. E. W. G. Masterman, on "The History of the Hill of Ophel." Sir Charles Close referred to the loss of Mr. Percival and Mr. James Melrose, the former a member of the Executive Committee, the latter, the oldest member of the Fund, dying at the age of a hundred. The Chairman also referred to the mutual relations of the Fund and the British School, and spoke on the need of a Palestine Exploration Fund Endowment, to enable our society to prosecute its work more effectively. Sir Charles Marston—through whose generous help the work at Ophel is due—said that as a business man, breadth of vision was necessary, and that scholars were apt to forget our gaps in knowledge, gaps which the P.E.F. could help to fill. We print below a full account of his and other speeches, together with Dr. Masterman's lecture.

We print in this issue Mr. Crowfoot's preliminary report of the last season's excavations on Ophel. The Rev. J. D. Chitty, of the British School of Archæology in Jerusalem, together with Mr. Michael Marcoff, contribute an account of their search of monastic remains in the Judæan wilderness, 1928-9. Mr. Crowfoot's pre-

liminary report, for the School, on the interesting work at Jerash is also included, and there is an account by Mr. Philip J. Baldensperger of the eastern house. A report from Dr. Elihu Grant, of the Haverford College excavations at the ancient Beth Shemesh, reached us too late for the present issue, and we hope to print it in our next.

— —

The committee are glad to report that the fifth Annual, that for 1927, has now been published and is on sale. It contains Mr. Crowfoot's report of his work at Ophel and the Tyropœon Valley during the excavating season of 1927. He was assisted by Mr. G. M. FitzGerald, Assistant-Director of the British School of Archæology, who has written the second part of the book dealing with the pottery and smaller finds, while Mr. Crowfoot describes the buildings and levels, analysing the stratification of the site from the earliest times to the Arab Conquest and the Crusading period. The volume contains as frontispiece the Old Gate from the north-west, 22 other plates, and 21 illustrations, there are 131 pages of letter-press and an index.

———

The Palestine correspondent of the *Near East* writes (April 25): "It is rare that Palestinian archæology produces anything of really picturesque appeal, but it has done so at last in the little Byzantine synagogue discovered two months ago at Bet Alpha, a small Jewish colony near Beisan, and excavated by Dr. E. L. Sukenik on behalf of the Hebrew University. The feature is an extensive mosaic flooring, with colours bright and fresh, giving the signs of the Zodiac and illustrations from the Old Testament; there are but a few small parts damaged, and the whole is extremely attractive, although its artless simplicity is more amusing than impressive. The Department of Antiquities has undertaken to protect it and roof it in. This mosaic has escaped the fate of a similar one discovered by the Dominicans ten years ago at Ain Duk, near Jericho, in which all except the geometrical patterns had been obliterated in a period of iconoclastic zeal among the Jews in the eighth century, when they removed from their synagogues 'the likeness of anything.' The archæologist holds that the Bet Alpha mosaics were saved from destruction because the synagogue collapsed, probably by an earthquake, before the iconoclastic period, though the casual visitor

is tempted to think that they were saved as being quite unlike 'anything in heaven or on the earth.'"

The newly-discovered synagogue continues to arouse the liveliest interest. According to the Canadian and German Press, the area now excavated measures 28 by 14 metres. The building faces Jerusalem. The walls are of rough limestone from Gilboa, showing traces of plaster and paint. The forecourt and courtyard are paved with white and black limestone mosaic, formed of large stone squares placed in simple linear ornamentation. But in the prayer hall, which is divided into three naves by pillars of black basalt, rises a mosaic of bright, beautiful colours. The stones, which measure only half a centimetre, are of natural colours set in twenty-two different shades. The colours of the jewellery worn by angels and by Virgo of the Zodiac—emeralds, topaz and amethysts—are shown by crystal squares. Inscriptions in both Hebrew and Greek are all in a remarkable state of preservation.

Concerning pictures portrayed in the mosaic, Dr. Sukenik says :—"In the history of art we have found at Beth Alpha the connecting link of the road from Jerusalem to Rome. The drawings in the Beth Alpha mosaics were in such primitive and obviously original style that, according to their discoverer, it is out of the question that they are in any way connected with higher late Greek art. One portion shows a sun chariot drawn by four horses distinctly pictured as masks, not as living animals. The feet have no proportion to the heads. This, says Dr. Sukenik, is an expression of symbolization. Such symbolization is shown in other pictures. Twelve figures of the Zodiac are portrayed, amongst them being Virgo, sitting on the throne, which is distinctly a forerunner of the holy virgin in early Byzantine mosaics ; also Abraham sacrificing Isaac, the altar and the tree to which the ram is tied—all this style is as primitive as the art of Abyssinia. In a perfectly naturalistic drawing of the scorpion, God's hand replaces God's voice, while Isaac is being sacrificed. It is the same spirit of symbolism that was created from [Ichthys]—the early Christian symbol of a fish. God's voice becomes God's outstretched hand, and so the Jew in the village of Beth Alpha drew the hand in the same manner as the Christian drew the fish in the catacombs of Rome."

The Times (April 16) reported that two inscribed stones were found to the north of the Haram bearing Hebrew names and a prayer for the rebuilding of the Temple. The inscriptions, engraved with varying degrees of skill, cover periods from approximately the late Byzantine period to the 14th or 15th century. Apparently the stones had originally formed part of the northern wall of the Temple enclosure at a spot which for centuries served the same purpose as the present "Wailing Wall" (which bears a mass of similar inscriptions but of a very much later date). The building in which the stones are found was built in 1359, about which time they became inaccessible to Jewish pilgrims who came to lament their former glories at the nearest possible spot to the site of their ancient sanctuary.

The Annual Exhibition of Antiquities founded by Sir Flinders Petrie at Beth-Pelet, is being held at University College, Gower Street, W.C.1., from July 8th to 27th daily on week-days, 10 a.m.—5 p.m., and on two evenings, July 10th and 19th, 6.30—8.30 p.m.

By an arrangement with Sir Flinders Petrie, Members of the P.E.F. are enabled to purchase at half the published price the Reports of the British School of Archæology in Egypt dealing with that Society's researches in Palestine. Reciprocally, the excavation Reports of the P.E.F. henceforth issued are available to Members of the School in Egypt similarly at half-price. P.E.F. Members desirous of taking advantage of this privilege should apply to the Secretary, 2, Hinde Street, W.1.

We have to thank Miss A. H. Finn for the presentation of 500 copies of *Palestine Peasantry: Notes on their Clans, Warfare, Religion and Laws*, being a reprint of the work of her mother, the late Mrs. E. A. Finn who, with Consul Finn lived in Palestine for 17½ years and devoted much time to a study of the social divisions and conditions of the inhabitants some fifty or more years ago, and adduces that the modern Arab Fellâhin are descendants of the ancient Canaanites. This interesting little book of 95 pages is on sale at 7d. per copy, post free.

Subscribers in the United States are asked kindly to note that subscriptions should be forwarded to the Hon. General

Secretary, Prof. W. M. Randall, of 55, Elizabeth Street, Hartford, Conn., U.S.A.

Antiques for Sale.—A small collection of antiquities from the excavations at Ophel is on view at the Museum of the Fund, 2, Hinde Street, Manchester Square, W.1, and a number of duplicates, including pottery lamps, stamped Rhodian jar-handles, etc., are on sale.

The Committee are glad to report that the *Annual*, 1927, on the Ophel Excavations has been published and is on sale, 4to, 135 pp., 22 plates and 21 text illustrations. Price 31*s.* 6*d.* to non-members. Free to all full members.

Mr. H. C. Luke's translation and annotation of a 16th century MS., under the title of *A Spanish Franciscan's Narrative of a Journey to the Holy Land*, is on sale at 4*s.* bound in cloth, and 2*s.* 6*d.* in paper covers.

The new plan of Jerusalem on a scale of approximately 1 : 5000, or about 12 inches to a mile, recently published by the Pro-Jerusalem Society, is now on sale at the P.E.F. office. Unmounted it measures 39 × 34 inches, and the price is 5*s.*; mounted on cotton and folded to size 8 × 6 inches, price 9*s.* The latter form is the more convenient, as owing to its size, the unmounted sheet cannot be sent through the post without a fold.

The library of the Palestine Exploration Fund contains many duplicate volumes. They may be had separately, and a list, with the price of each volume, has been prepared, and can be obtained on application.

The list of books received will be found below.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but they are preserved in the office of the Fund, where they may be seen by subscribers.

The Committee gratefully acknowledge the following special contributions from :—

	£	s.	d.
Cambridge Museum of Archaeology and Ethnology	5	0	0
H. B. Pyne, Esq.	5	0	0

The *Annual Report*, with Accounts and List of Subscriptions for 1928 was issued to Members of the P.E.F. with the April number.

A complete set of the *Quarterly Statements*, 1869-1910, containing some of the early letters (now scarce), with an Index, 1869-1910, bound in the Palestine Exploration Fund cases, can be had. Price on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £12 12s. A catalogue describing the contents of each volume can be had on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The Museum at the Office of the Fund, 2, Hinde Street, Manchester Square, W.1, is open to visitors every week-day from 10 o'clock till 5, except Saturdays, when it is closed at 1 p.m. (*See notice re holidays on p.* 125).

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from Prof. Randall, Honorary General Secretary to the Fund, Hartford College, Conn., U.S.A.

The Committee have to acknowledge with thanks the following :—

Annual of the British School at Athens, xxviii. Session 1926-7.

The Expository Times, April. The Rivers of Egypt, by Lieut.-Col. K. C. Stevenson.

The Antiquaries Journal.

The Near East and India, June 20 : The Arabians (lecture by Mr. Rutter) ; Siwa, by P. S. McElroy.

The Journal of Egyptian Archæology, xv, 1, 2, May : Notes on the reign of Amenophis III., by S. R. K. Glanville ; Ptolemy II. and Arabia, by W. W. Tarn ; the Shepherd's Crook and the "flail" or "scourge" of Osiris, by Percy Newberry, &c.

University of Liverpool, Annals of Art and Archæology, xvi., 1-2 : Excavations at Armant, by R. Mond and W. B. Emery ; Egyptian figurines, by H. R. Hall.

How to Observe in Archæology : Suggestions for Travellers in the Near and Middle East, 2nd ed. (British Museum, 1929).

The New Judaea.

Journal of the American Oriental Society, March.

Homiletic Review.

American Journal of Philology, l. i.

American Geographical Review, April.

Jewish Quarterly Review. April : Some prehistoric antiquities from Mesopotamia, by Speiser ; historical topography of ancient and mediæval Syria (review, by Sukenik).

Bulletin of the Metropolitan Museum of Art, 3.

The Museum Journal : Pennsylvania, March : Palestine, report of the 1928 season, by Alan Rowe ; the two royal Egyptian stelae of Beth-shan, by the same ; Ur of the Chaldees, more royal tombs, by C. Leonard Woolley.

Journal of the Society of Oriental Research, xiii., 1-2 : Studies on the origins of the religion of Egypt, by S. A. B. Mercer.

Bulletin of the American Schools of Oriental Research, April : Excavations at Yorgan Teppe, by R. H. Pfeiffer, &c.

Report of the United States National Museum, 1928. (Smithsonian Institute, Washington).

Revue Biblique, April : New Jewish ossuaries with inscriptions, by R. P. M. R. Savignac : supplementary notes on the Dead Sea, by R. P. M. F. Abel.

Syria, ix., 4. Seated figures and the sacred chariot, by S. Przeworski ; were the Hyksos the inventors of the alphabet ? by C.-F. Jean ; the Egyptians at Beirut, by Maurice Dunand ; the French excavations at Nerab, by R. R. P. P. Abel and Barrois ; Two Shiite sanctuaries at Aleppo, by J. Sauvaget ; etc., x. i. : a lead idol from Cappadocia, by H. de Genouillac ; some objects from Byblus, by Pierre Montet ; a Syrian god on a camel, by F. Cumont ; Palmyra and district, by R. Dussaud.

La double inscription du Temple de Salomon, encore quelques observations, by Ch. Bruston.

Institutiones Biblical, Scholis Accomodatae, by P. A. Vaccar, S.I. Rome, 1929.

Biblica, x., 2 : The ancient gods and language of Cyprus revealed by the Accadian inscriptions of Amathus, by E. Power ; notes on sites in the Eastern Ghōr (between Wady Nimrin and the Dead Sea) by A. Mallon.

Zeitschrift d. Deutschen Palästina-Vereins, lii., 1. (Edited by M. Noth), change of editorship ; present position and tasks of Palestinian research, A. Alt ; the geology of the plain of Beisan, by Picard.

Orientalistische Literaturzeitung, May : On the name Manetho, by W. Spiegelberg ; among the numerous reviews, Petrie's Gerar, by Max Löhr. June : Islam and Manicheism, by Nyberg ; the new Latin script in Turkey, by Duda.

Archir fur Orientforschung, v., 2-3 : Problems of Egyptian pre-history by Fr. v. Bissing ; the slain god, by D. Opitz, &c. (Also reviews and summaries of excavations).

Zeitschrift fur die alttest. Wissenschaft, vi., 2 : Marriage in ancient Israel, by J. Morgenstern ; survey of periodicals, archæological notes, &c.

Reallexikon der Vorgeschichte, articles "Syrian graves, Tell es-Safi, T. Jemma, Taanach," &c., by Peter Thomsen.

Die Entstehung der Mediterran-Roterde, by A. Reifenberg. (Dresden and Leipzig, 1929).

Bezalel Archives, i.-iv. (Jewish arts and handicrafts, National Museum and Arts Library).

La Revue de l' Académie Arab ; Damascus, Jan.-Feb.

Journal of the Palestine Oriental Society, ix., 1. Topographical researches in Galilee, by A. Saarisalo ; the newly discovered Jewish ossuary inscriptions, by A. Yellin, and E. L. Sukenik ; review of Wiener's Altars of the Old Testament (Albright).

Bible Lands, April : Hidden treasure in Bible Lands ; Capernaum.

Al-Mashrik, May : Alexander the Great at Sidon, by Emir M. Chéhab. June : Syria and Lebanon, the antiquity of their names, by P. Lammens, &c.

From Mr. Pilcher : *Journal of the Royal Asiatic Society.*

The Committee will be grateful to any subscribers who may be disposed to present to the Fund any of the following books :—

The Memoirs of the Survey of Western Palestine.

The Quarterly Statement, from 1869 up to date.

Duc de Luynes, *Voyage à la Mer Morte* (1864) ; published about 1874.

K. von Raumer, *Der Zug der Israeliten*. (Leipzig, 1837.)

Lagarde, *Onomastica Sacra* (1887).

New Edition of the Babylonian Talmud, English Translation. Original text edited, formulated, and punctuated by Michael L. Rodkinson. Revised and corrected by the Rev. Dr. Isaac M. Wise. Published by the New Amsterdam Book Company, New York. Vol. i, *Sabbath*, already in the Library ; subsequent volumes wanted.

Whilst desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors

to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they do not necessarily sanction or adopt them.

FORM OF BEQUEST TO THE PALESTINE EXPLORATION FUND.

I give to the Palestine Exploration Fund, London, the sum of _____ to be applied towards the General Work of the Fund; and I direct that the said sum be paid, free of legacy Duty, and that the Receipt of the Treasurer of the Palestine Exploration Fund shall be a sufficient discharge for the same.

NOTE.—*Three Witnesses are necessary to a Will by the Law of the United States of America, and Two by the Law of the United Kingdom.*

SIXTY-FOURTH ANNUAL GENERAL MEETING.

The Sixty-fourth Annual General Meeting of the Palestine Exploration Fund was held in the rooms of the Society of Antiquaries, Burlington House, W., on Monday, 1st July, 1929, when Sir Charles Close, K.B.E., F.R.S., etc., presided and a lecture was given by Dr. E. W. G. Masterman on "The History of the Hill of Ophel from the earliest times to the present day," illustrated by views of the various discoveries made on the site. There was a good attendance of the Society's supporters.

The Hon. Secretary (Dr. E. W. G. Masterman), announced receipt of apologies for absence from Sir Flinders Petrie, Sir George Adam Smith, Rev. Dr. Ewing, Mr. O. G. S. Crawford, Prof. Archibald Dickie, Mr. Richard Cadbury, Prof. J. L. Myres and Prof. J. Garstang. He also reported, with great regret, the death of two very valuable members of the Society, Mr. F. W. Percival, who for many years had been a member of the Executive Committee, and Mr. James Melrose, a member of the General Committee, and a generous supporter of the Fund for over forty years. He stated that 21 Subscribers had qualified for full membership since the last Annual Meeting. He proposed, on behalf of the Executive Committee, that Mr. G. R. Driver, of Oxford, be made a member of the General Committee.

Dr. H. R. Hall seconded the proposition, and it was carried unanimously.

The Chairman: Before proceeding to the next item on the agenda, I should like to add to what Dr. Masterman has said with regard to the loss we have suffered by the death of Mr. Percival, who was very well-known to me personally and who used to attend, as far as his health would allow, the meetings of the Executive Committee and always showed the greatest interest in our proceedings. The death of Mr. James Melrose was also a very great loss to the Fund. You will probably remember that Mr. Melrose

was 100 years old when he died, and almost to the last he used to send us donations. Whenever there was any special necessity we were almost sure to receive a cheque from him. We deeply regret the loss of our oldest member. The next item in our proceedings is the moving of the adoption of the Report and Accounts for the year 1928. During 1928 the excavations on Ophel were continued, thanks to the generosity of Sir Charles Marston, who gave another £2,000 for the purpose. Mr. Crowfoot directed the work. Although the excavations did not reveal any sensational discovery, they added to our knowledge of the original Jerusalem. An "Annual Volume" has been published describing the excavations of the year 1927, and I think all who have received the volume will agree that it is admirably written, illustrated and printed. In fact, those who subscribe one guinea get more than their money's worth in that volume. It should be noted that, in the *Quarterly Statement*, we endeavour to keep subscribers informed of the activities of other societies working in Palestine. We are indebted to Mr. Alan Rowe for his reports on the excavations at Beisan, and to Mr. Elihu Grant for the account of his work at Beth Shemesh. The question of the cost of printing has been enquired into by the Executive Committee and it is thought that it may be possible to effect some small reduction of cost without adversely affecting the character of the *Quarterly Statement*.

I should now like to draw your attention to the alliance which exists between the Palestine Exploration Fund and the British School of Archæology in Jerusalem. You will see on the cover of any recent *Quarterly Statement* a note that in it "there is incorporated the *Bulletin* of the Jerusalem School of Archæology." In addition, the School makes use of the Fund's offices in Hinde Street, and employs, to a limited extent, the services of our Assistant Secretary. On the other hand, when we required a Director of Excavations we naturally turned to the Director of the School, Mr. Crowfoot. So that we help each other materially; in fact, we are on the friendliest terms with the School and the School with us; at least we hope so. We know our feelings towards the School. I would add that if you study the Memorandum of Association of the Palestine Exploration Fund, dated 1879, under which authority we work, you will find nothing amongst the activities of the School which does not come under one or other of the clauses of the Memorandum.

Meanwhile, I should like to mention a piece of history connected with a society which has almost passed out of recollection. In the year 1804 there was founded a society which took the name of the Palestine Association. Its objects were essentially the same as those of our Fund, although it was founded sixty-one years before the Palestine Exploration Fund came into existence. The Association lasted until 1834, but did not succeed in doing very much during the thirty years of its existence. In 1834 at a meeting presided over by Mr. Bartle Frere—uncle, I believe, of Sir Bartle Frere and a founder of the Royal Geographical Society—it was resolved to dissolve the Association and to hand over all its papers and books to the Royal Geographical Society, and also to hand over to that body the balance credited to the Association, which amounted to £135 9s. 8d. Well, I asked Mr. Ovenden, Assistant Secretary of the Fund, about that money and he says that, as far as he knows, it was not actually repaid, but when the Palestine Exploration Fund was founded in 1865 it seems to have been considered by some, at least, of the members that it was the successor of the Palestine Association, and in 1876 a letter was written from the Palestine Exploration Fund to the Royal Geographical Society asking for the return of the sum of £135 8s. 8d. It is not known if the Royal Geographical Society paid up ; as far as we can make out the Fund did not receive the money. On the other hand, the Royal Geographical Society gave the Fund £100 in 1881, and another £100 in 1914 for the Negeb survey, so I do not suppose we can raise the question now. I have asked the officers of the Royal Geographical Society to be so good as to hunt amongst the records for anything they can find throwing light on the history of the Palestine Association, but so far they have not been able to find anything. They tell me that ninety-five years ago the papers were not very well kept.

All subscribers to the Palestine Exploration Fund will have welcomed the news that a munificent American citizen has endowed the Palestine Department of Antiquities with funds for the building of a Museum and for its maintenance. The essential purpose of the Museum will be the proper display, arrangement and protection of those relics of antiquity which serve to illustrate the past history of the Holy Land. Now, those relics of antiquity have been dis-

covered and interpreted by the labours of the excavators and scholars who have worked during the past sixty-four years for the Palestine Exploration Fund and for other similar societies. It would be a delightful and natural sequence to the munificent gift to Palestinian archæology, mentioned above, if the work of discovery and excavation could be similarly endowed. A Palestine Exploration Fund Endowment would put this society in a position to prosecute its researches more effectively, and would banish the black cares of finance which are now never absent from the minds of the members of the Executive Committee.

I now formally move the adoption of the Report and Accounts which have been submitted to you, and I suggest that we take them as read.

It having been agreed that the Report and Accounts be taken as read, SIR CHARLES MARSTON, in seconding their adoption, said :—

"I rise with some hesitation to second the resolution because my name has figured rather prominently in the Report; but I am proud of having been able to help this Fund in the past, and I hope in future to do so with a view to throwing light upon the most important book in the world, namely, the Bible. I think the time has passed when we need sit in our studies and build up theories, based upon anomalies we discover, in the study of the Holy Scriptures. We are now beginning to reach a time when we can find outside evidence of the truth or otherwise of the Books of both the Old and New Testaments. Palestine and Mesopotamia, the two countries in which the principal events of the Bible took place, are now in British hands. Modern means of locomotion have brought within easy reach places which previously were inaccessible; and if the past generation—men like Kitchener, Warren, and others—could do so much, how much more does it become the duty of those of the present day with these modern facilities to help to clear up much that at present puzzles us.

"I cannot claim to be an expert or even a scholar in any shape or form. I am just an ordinary business man. But a business man has sometimes an advantage in breadth of vision; the technician may become too involved in details to see out of the wood for the trees. As a business man I desire to draw the attention of scholars to the fact that their horizon of knowledge may be far more limited

than they assume, and that the amount that we do *not* know regarding the history of the world must be taken into account.

"In a book which has just been published on the Hittites, there are many obvious gaps in knowledge covering the period some 1,000 to 2,000 years B.C. So far as Babylonia, Mesopotamia and Palestine are concerned, our chance to fill up gaps has come, and we must use it. We want to feel that the Palestine Exploration Fund, almost the Mother Society of all Biblical archæology, will be the nucleus of the great work which ought to be done, and which can be done, during the next three or four years. We have had a considerable sum of money given to the Palestine Government for a Museum in Palestine. There are, I am sure, numbers of men in the United States who would be willing to give large sums for Excavation; but we ought to be able to find in our own country, among British citizens, men of wealth who will help us. I also feel that the time has come when the public will take a great interest in Bible archæology if it is properly put before it. There is a growing desire among those who read the papers for something more serious than politics, amusement and sport."

The CHAIRMAN put the resolution to the vote, and declared the Report and Accounts unanimously adopted.

On the motion of DR. WHEELER, seconded by MR. MICHELSON, the following were unanimously elected to constitute the Executive Committee:—Dr. H. R. Hall (*Chairman*), Sir Charles Close (*Hon. Treasurer*), Sir Charles Marston, Dr. Stanley A. Cook, Mr. O. G. S. Crawford, Rev. Canon J. N. Dalton, Sir Arthur Evans, Prof. R. A. S. Macalister, Mr. Robert L. Mond, Brig.-Gen. E. M. Paul, the Hon. W. Ormsby-Gore, Sir Flinders Petrie, Mr. Ernest Richmond, Rev. Prof. A. H. Sayce, Rev. P. N. Waggett, Dr. E. W. G. Masterman (*Hon. Secretary*).

DR. E. W. G. MASTERMAN then delivered the following lecture on "The History of the Ophel Hill":—

It would, it seems to me, be a misuse of the very short time at my disposal this afternoon were I to enter into any elaborate discussion as to the evidence from history as to the identity of the hill, now so widely called Ophel, with the ancient Zion of the Jebusites. There seems no reasonable doubt but this hill which Josephus calls the Lower City and the Akra is identical with the City of David in I. Maccabees and with the Zion which King David

captured and named after himself. It is clear, too, that Ophel is in the Book of the Chronicles used as an alternative to the name Zion of the writers of the Books of the Kings.

There would probably be none who would cling to-day to the older beliefs regarding the topography were it not for the facts that Josephus appears to support them, for he places David's city or fortress in the S.W. hill and that Christian tradition for many centuries has located Mount Zion, the Zion Gate and the Tomb of David on the same Western Hill. How greatly the topography of Jerusalem has changed during the last twenty or thirty years can be seen by anyone who takes up one of the older Bible Dictionaries (such as Smith's) and sees the completely different sites assigned there of Zion and the Akra from those accepted by almost all modern Bible scholars to-day.

It is not my purpose to labour these points to-day, but briefly, and in an entirely popular manner, to describe the more outstanding archæological features of the hill Ophel and the relation of these, as I believe, to history. In doing this I make not the slightest claim to be an archæologist, for I am not, but I can enter into the descriptions of others with considerable vividness because I have for many years been familiar with the ground. The Virgin's Fountain, the Siloam Tunnel, and Warren's shaft I have all visited and traversed. I had the good fortune to be in Jerusalem when Messrs. Bliss and Dickie were excavating at the Pool of Siloam and visited the steps which I shall describe. Through the courtesy of the explorers I saw much of the work done in 1910-1911 described so fully by Père Vincent in *Underground Jerusalem*. I was in Jerusalem and spent several happy hours on the site of the great Eastern Tower and walls discovered by the Rev. Garrow Duncan. I trust, therefore, I shall be excused, in the absence, unfortunately, of an actual explorer, if I attempt to describe those outstanding features which in my opinion render this small hill one of the most interesting in the world to all students of the Bible.

Firstly, then, as to the natural features of the site. First in order of importance, because the feature which before all others determined the situation of the City, is the spring. It is now called Ain Umm ed-Deraj, "the Spring of the Steps," because the cave where the water now rises lies so deep in the valley bottom that it must be approached down 30 steep underground steps. It is

also called Ain Sitti Miriam, "the Spring of the Lady Mary." Its Old Testament name is Gihon, and here, at the sacred City's source, David had his son Solomon crowned king.

To-day the waters of the spring are contaminated from the accumulation of sewage which flows over the area of its supplies. It is also intermittent and has been so for many centuries. But in ancient times its waters were pure and abundant and "flowed free and unrestrained from its cavern in the mountain side along the valley where the vanished stream of Kidron once carried its impetuous way amid the rocks." (*Underground Jerusalem*, p. 37.) It was certainly the largest and almost the only source of water for miles around and as such must have been the resort of wandering shepherds and their flocks before ever the hill out of whose bowels it flowed had any settled inhabitants.

In the steep cliffs around the source (now deeply buried) are many such caves as bedouin use to-day for the shelter of their flocks. A later age utilized some of these, and constructed many others for the purpose of tombs, such as now riddle the steep eastern slopes.

But such a site must have soon drawn to it some settled inhabitants. The water was the first attraction, but nature had also provided—rising steep above the source—a hill which, in its natural condition, was, as we know from other sites, the ideal spot for ancient defence. It was essential to settlers to be able to defend their source of water. Their greatest enemies in the beginning were not foreign armies, but their own kinsmen who still abode in tents, and camped like the bedouin to-day in suitable spots over many miles on the hill side. On the east the hill rose in a succession of precipitous scarps from the deep valley of the Kidron. To-day its slopes are rounded off by the vast quantities of rubbish—full of pottery fragments—tipped over the hill above. One rocky natural scarp alone has been described which is precipitous for 22 feet. The steep cliff of the hill side opposite, where the village of Silwan is situated, vividly pictures the ancient condition of the opposite side of the valley. Then the actual valley bottom is not only much to the west of its present condition, but many feet below it. The steep stairway to the spring shows this, but the cave of the spring is by no means at the lowest part of the valley bed. The plateau summit of Ophel is at least 150 feet above the bottom of the valley.

How far to the north these semi-precipitous cliffs extend we do not know, but they have been traced in places southwards until, at the junction of the Kidron with the Tyropœon Valley, the southern end of Ophel ends in a cliff high to-day, but with its base or ground level now 50 feet above the valley bottom.

The valley to the west of Ophel requires some slight description, because it is less known to Bible students than the great valleys of Kidron to the east and Hinnom to the west of the Jerusalem area.

This valley is called by Josephus the Tyropœon, or, as he interprets it, the Cheesemongers' Valley, and it is now known simply as el-Wad—the Valley. For many centuries it has been the sewage valley, and one name of the City gate astride it, the Dung Gate, indicates this association.

To-day this valley is, in places, much filled up. It commences north of the Damascus Gate and runs south between the Western Hill and the Temple enclosure, with ever-increasing depth to Siloam —a total distance of about 1640 yards. Soundings show that opposite the Temple summit (es-Sakhrah) the natural level is 50 feet below the present surface. At the S.W. corner of the Temple it is between 80 and 90 feet.

Its depth at its southern end has never before been fully plumbed until Mr. Crowfoot, in our excavations of 1927, showed that in the centre of the present valley—due west of the Virgin's Fountain—the rock lies over 50 feet below the present surface. This, and the examination of the steep, naturally scarped western side of Ophel, shows that here, too, the hill was well protected by natural features. For long ages rubbish—the results all too often of wilful destruction by enemies—has been tipped down the slopes of the Tyropœon until its natural defensive strength has been lost.

Only on the northern part are the natural features of Ophel obscure. Prof. Macalister in his excavations struck a shallow natural valley, which he named the Zedek Valley, which had been excavated by a streamlet that flowed from a cave on the summit of the hill in Tertiary times, into the Tyropœon Valley. This would appear to have been the natural feature which determined the line of the northern fortification of the earliest inhabitants. They constructed here a trench ten feet wide by eight feet deep. The explorer dated this defence about 2000 B.C., and considers that it was superseded later by a new line defence further north. The

ruined walls he found there form a complex of which the full disentanglement cannot be determined without further excavation.

But this much is certain—from the discoveries at similar sites—that somewhere about 1500 B.C. there must have been a city here with powerful city walls. It may be that we have not yet struck the line of the most powerful defences on the north. In the east, above the great spring, the great buttresses discovered by the Rev. Garrow Duncan, which possibly guarded a gate, and some at least of the adjoining walls, belong to the pre-Hebrew period. In the west, Mr. Crowfoot's discovery in the Tyropœon Valley of the powerful western City Gate is a very substantial new contribution towards the solution of the ancient topography. The original gateway—lying behind layers of well cut stone of a later period—had walls on each side of the entrance 26 feet thick, and Mr. Crowfoot has no hesitation in stating it must have belonged to the Bronze Age, or, at least, to the Early Iron Age. It was certainly there before David took the City. Mr. Crowfoot has described with considerable detail how this wall was built. The western edge of the plateau of Ophel presents first a steep drop of 10 feet, then a level shelf running out 10 to 13 feet, then another drop of 8 feet, below which there is a gently sloping shelf 36 to 40 feet broad. It was upon this sloping shelf that the Jebusites constructed their gateway. A wall 26 feet thick would have seriously curtailed the already narrow area of the plateau, but this construction avoided that, and, at the same time, gave some added breadth to the area of the city. The lowest sloping plateau gave room for the wall and for a roadway outside it; the upper shelf left a space some 13 feet broad between the back wall of the tower and the perpendicular scarp, which added enormously to the defensive strength of the gate. (See *Annual*, Vol. v., pp. 18, 19.) The roadway between the towers was 11½ feet, and the invader having forced the gate found in front of him a steep cliff, and if he turned to the right or left, he had to traverse a road protected on the city side by this same cliff.

Although the destruction of the dwellings of the pre-Hebrew period has been complete, the evidence of the pottery finds is conclusive that this hill was the site of a settled civilization for many centuries before the time of David. Numerous ancient tombs unearthed in the eastern cliffs of Ophel confirm this.

There remains, however, one monument of this period which is of

singular interest. An ancient city, however powerful its natural defences, and however massive its walls and gates, can offer but little resistance if cut off when besieged from its water supply. This is especially true in a land which is rainless for half the year. In later centuries the construction of rock-cut domestic cisterns to a considerable extent met the difficulty, but in the period with which we are now dealing -the second millennium B.C.—the fortified cities of Palestine appear to have been entirely dependent upon access to their springs. Hence in many places we find rock-cut tunnels leading from within the walls to the city's source. At Gezer such a tunnel was followed downward to a depth of 97 feet to reach the source, and what is especially important the date of its construction can with certainty be placed at before 1500 B.C., and probably some centuries earlier. Great as this work is, a consideration of the perfection which tunnelling for tombs had reached in Egypt makes it not remarkable that some Egyptian workers should have carried a knowledge of its methods to Palestine. A full description of the great rock-cut tunnel—named after its discoverer, Warren—is impossible here. A few plans will show something of its strange features.[1]

The necessities of working in the softer strata of the limestone determined the irregularities of its course and dimensions, while the final drop to the neighbourhood of the spring was along a natural fissure. The tunnel began in the rock-cut stairway for 18 feet, ending in a rectangular well—the purpose of which may be the subject of speculation—it then descended by a stairway 16 feet, then came a perpendicular drop of 9 feet, followed by a low doorway—two features probably designed for defence. It then descends gently for nearly 100 feet, the roof remains nearly level, so that the tunnel's height gradually rises to over 20 feet. It reaches a well-like descent of 40 feet, ending in a cave chamber which is connected with the spring cave. There are many interesting features of this remarkable work which cannot be entered into here, but I think there can be little doubt that this is the *Sinnôr*, or "water course," up which Joab led his hardy mountaineers into the stronghold of the Jebusites, referred to in II Samuel v., 7-9: -"Nevertheless David took the stronghold of Zion, the same is the City of David. And David said on that day, whosoever smiteth the Jebusites let him get

[1] See Plan III, Vincent's *Underground Jerusalem*.

up to the watercourse . . . he shall be chief and captain. So David dwelt in the fort and called it the City of David " ; see also 1 Chron. xi., 4-7.

That a city should be surprised thus was no new thing, and it is easy to imagine how confusion would reign among the host of the Jebusites at the sudden appearance of a resolute detachment of the enemy in their very midst. Doubtless the final capture of the city was made by breaching the northern wall, the city's weakest defence.

When we come to the early Hebrew Period—that period on which perhaps we most desire to have illumination—we find ourselves in great difficulties. Of pottery fragments we have abundance, some in holes on the site—like the 700 fragments, 90 per cent. of which belonged to this time, recently found in a seven-feet deep crack in the rock in Mr. Crowfoot's excavations—but still more in the vast quantities of rubbish which have been tipped over the edges of the plateau into the Valleys around. Age after age builders on this limited but very sacred hilltop have cleared the surface of the ruined house-foundations belonging to a previous age. The followers of David did it with the ruins of the Jebusite city, and those who built after the Exile did it in their reconstruction of their city. Of the City wall it seems highly probable that the great tower inserted into the old Jebusite bastion—one of the great monuments of Palestine—is the work of one of the early Hebrew kings—Solomon as probable as any. (See *Annual*, Vol. iv.)

With regard to the great Western Gateway, it covers all periods from the Jebusites to the Destruction by Titus. It was probably the chief—Mr. Crowfoot suggests possibly, when first made, the only—entrance to the city. Some of the mixed masonry which lies behind the existing gateway remains must belong to the period of the Monarchy, but I take it to have been impossible to disentangle these remains with any certainty. To the north of Ophel Prof. Macalister considers that a wall which he found " closing a breach " in the old Jebusite wall belongs to David's time, but our more recent work appears to have thrown doubt on this point.

The lines of the northern walls seem to me still uncertain, and it is clear that further excavation is needed to follow up the western wall north of the great gateway to where it turns eastward and becomes the north wall. This last must have been the weakest

spot in the city's defences and I should be surprised if we did not find massive traces of ancient fortifications considerably further north than we have yet gone. Until this is done we cannot know the full extent of the fortified area known as Zion.

In the Tyropœon Valley the excavations found few buildings. One massive two-storied house, probably dating from this time, was found 66 feet west of the gate[1], but it must be remembered that the valley bottom here would probably be kept fairly clear as long as the gate was in use, and in other parts of the Valley we might find much more.

Belonging to the same period, the mid-period of the Monarchy, are the traces of wall followed for 700 feet by Sir Charles Warren from the S.E. corner of the Haram enclosure along the edge of the Kidron Valley. It would be of particular interest to excavate the great tower which Warren described as standing to a height of 66 feet and a breadth of 80 feet. Warren's observations were made by tunnelling and were necessarily very incomplete. The whole line of the wall traced by Warren, and nearer Ophel by Guthe, must have stood through most of the Monarchy, was reconstructed by Nehemiah, and remained in use till the destruction of the city by Titus A.D. 70. Whether or not the complicated rock-cut chambers found on the western edge of Ophel were originally royal tombs, as has been suggested, is a point undetermined. If this is an example of what has become of the Royal tomb, it is to be hoped it will be answered in the negative.[1]

A more permanent monument of this time, and one of peculiar interest, is the great Siloam Tunnel. The evidence accumulated by Père Vincent (*Underground Jerusalem*) and his careful and scientific examination of the many tunnels which were constructed around the ancient spring are strong confirmation of the accuracy of the accounts given of Hezekiah's activities. We have found at the spring three systems of tunnels:—(1), the ancient Jebusite tunnel to which I have referred; (2), a network of tunnels and aqueducts used to conduct water along the lower slopes of Ophel and irrigate the gardens there, and (3), the great Siloam Tunnel itself. In 2 Chronicles xxxii., 3-4, we read that King Hezekiah, dreading the approach of Sennacherib, King of Assyria, "took counsel with his princes and his mighty men to stop the waters

[1] *Annual*, Vol. v., pp. 23-26.

of the fountains which were without the City: and they helped him. So there was gathered much people together and they stopped all the waters of the fountain and the brook that flowed through the midst of the land, saying, why should the kings of Assyria come and find much water?" (v. 30.) "This same Hezekiah also stopped the upper spring of the waters of Gihon and brought them straight down on the west side of the City of David."

So great was this work considered that when he died his acts are summed up as follows:—"Now the rest of the acts of Hezekiah and all his might and how he made the pool (*i.e.*, Siloam) and the conduit and brought water into the city, are they not written in the Chronicles of the Kings of Judah?"

The Siloam Tunnel branches off from the older aqueduct 67 feet from the entrance to the cave and after running an exceedingly winding course a total length of 1,749 feet, empties itself into the "Pool of Siloam." It is entirely rock-cut, 2-3 feet broad, and varies in height from 4 feet 6 inches to 16 feet at the extreme southern end.

The excavations made at the source in 1910-1911 show that there were other older canals constructed to lead the water out into the valley, but that at a period corresponding with that of Hezekiah these channels—"the fountains which were without the city"—were deliberately sealed up by masses of rock and cemented masonry. The date of this latter can be inferred by the character of the pottery fragments incorporated in it. One of these channels is of special interest to me as many years ago I crept underground along its course, together with a friend, for 176 feet.[1]

The famous Siloam Inscription which was found some years ago near the southern outlet of the aqueduct, although it names no king, is in an early script entirely consistent with the reign of Hezekiah. This has been further confirmed by the discovery at Samaria by Prof. Reisner of many ostraka of the time of Ahab with similar Hebrew characters written upon them.

This tunnel and all connected with it afford such a fascinating subject that only the limitations of time compel me to pass it by in such a cursory manner.

When we come to post-exilic Jerusalem we have considerable remains. The masonry of the great towers on each side of the

[1] See *Quarterly Statement*, 1902, pp. 35-38.

gateway are—according to Mr. Crowfoot—certainly not earlier than Nehemiah, but more probably in the second century B.C. During the last season's work Mr. Crowfoot has endeavoured to trace the western wall southward. Failing to find the ancient wall, he suggests that its remains may be underground further to the west than where he has dug. In that case they lay projecting further out than the gateway itself. The line of wall which he has found is certainly not early Jewish; indeed, a small hoard of coins of Antiochus III., which was found in its foundations, together with other evidence from pottery and coins, makes Mr. Crowfoot think that it belongs to the reign of Antiochus Epiphanes, and that the wall may be part of the Syria Akra, the building of which is mentioned 1 Maccabees 1, 33-36, and Josephus Ant. XII., V. 4. This suggestion opens up a most interesting problem, but as this is discussed in the July number of the *Quarterly Statement*, I shall not enlarge upon it now. Abutting upon the south side of the south tower of the ancient gate were found the remains of a great double cistern partly built and partly excavated in the rock. This he was at first tempted to ascribe to the time of Nehemiah; but according to Mr. Crowfoot's latest report it must have been made after the destruction of the Akra and was destroyed when Jerusalem was destroyed by Titus.

Before leaving this period mention must be made of the discoveries of Dr. Bliss in and around the Pool of Siloam. He was able to infer the rock-cut bounds of the pool made by Hezekiah and also the arcades which surrounded the pool in later—possibly—N.T. times. But more interesting in this connection he found a well-worn staircase, partly rock-cut and partly made of limestone blocks, which we may certainly conclude was the staircase up which the Jews, and at times ceremonial processions, ascended from the Pool to the Temple. The church, which was discovered at the same time, built over the south end of the tunnel and just north of the pool, belongs to the Byzantine era, being the work of the Empress Eudocia, and is of importance in relation to the buildings found recently higher up the Valley belonging to that time.

Jerusalem was destroyed in 70 A.D., little was left standing anywhere except the remains of Herod's great towers near where the Jaffa Gate stands to-day and the powerful Herodian walls which surrounded the Temple. Ophel must have been a heap of

shapeless ruins as bereft of buildings as it has been the last few centuries. The excavations in the Tyropœon have revealed sloping layers—of an insecurity dangerous to the excavators—consisting of broken masonry hurled down from the houses and fortifications of the "Lower City." This part remained unbuilt upon for at least two centuries. At length, about 300 A.D. a new level of occupation was started some 20 feet above the rocky bottom of the Tyropœon. Between 300 A.D. and about 638 A.D. there were doubtless many rebuildings; but the most complete one is that associated with the great paved street and its associated houses at a period between the latter part of the sixth century and the beginning of the seventh century, when Jerusalem became again a crowded city—the resort of multitudes of pilgrims. Upon this period, hitherto but little known from archæological remains, the excavations of 1927-1928 have thrown a flood of light. Professor Macalister's "House of Eusebius" and Mr. Crowfoot's "House of Anastasius" belong to this period and enough remains to illustrate the original method whereby the street was constructed and the architecture of their simple dwellings—houses, perhaps of those who "made their living by catering to the wants of the pilgrims, selling them cheap relics and other objects of piety and providing them perhaps with refreshment as they toiled up to the city from the Pool of Siloam and the church of the Man who was Healed of his Blindness."[1]

Many simple mosaics were found in the flooring of these rooms, but one recently found, which belonged to an ancient bath, has peculiar interest because the mosaics are worked into a Greek inscription which runs, "O thou who hast restored me and decorated me with mosaics, mayest thou, after having bathed in good health, enjoy thy foundations with thy family, O Lord Count Eugenius."

Such, therefore, is the Hill Ophel, the site of the ancient Zion—King David's City. Here David had his palace and beneath its walls his son was crowned. Here he, and most of his successors on the throne of Judah, were buried. For long centuries it lay a deserted hilltop with a few rude stone walls dividing its surface into vegetable gardens irrigated by the sewage of Jerusalem. What secrets lay below its surface? Sixty years ago who could tell? Now on every side we have as the result of exploration a knowledge

[1] *Annual*, Vol. v., p. 55.

of its secret tunnels, its hidden gates and walls belonging to two milleuniums of pre-Christian and early Christian history. What more may be found ? Who can tell ? Small as the area is, there is relatively much of its surface still unexplored. We are on sure ground. We are searching in no boundless wilderness nor any un-named hill. Upon this site have pressed the feet of Prophets and Kings of Judah from David to Herod. The task of taking over the exploration of this site was offered to the world. It was thought to be too important for any one nation or any one Society. We accepted the challenge. With one outstanding exception the response has been remarkably poor. Only one man has been sufficiently caught by the romance and uniqueness of the site and has given generously. But a work of this kind done for the benefit not of an individual or a society, or even of a nation, but *for the world* should have world-wide support. We, as a society, feel we ought to go ahead. We have in Mr. Crowfoot a diligent and most able Director, more and more an expert at this particular work as he increases his experience. Sir Charles Marston cannot be expected and should not on any grounds of justice or reason, to continue to finance *alone* the actual digging expenses.

In recent Annual Meetings the P.E.F. has sought to promote archæological knowledge regardless of whether the work was their own or not. I think this year the Fund may here, and through the Press, appeal to the public for a wide response to their appeal for help to carry still further the exploration of this historic site.

Dr. H. R. Hall proposed a most hearty vote of thanks to Sir Charles Close for presiding, to Dr. Masterman for his lecture, and to the Council of the Society of Antiquaries for the use of their rooms. He thought all would agree that Dr. Masterman, in his lecture, had shown many new and old friends, and had succeeded in focussing attention upon Ophel as undoubtedly the site of the original and oldest Jerusalem.

The vote of thanks was accorded amid hearty acclamation, and, the Chairman having briefly returned thanks, the proceedings terminated.

EXCAVATIONS ON OPHEL, 1928.

PRELIMINARY REPORT.

By J. W. Crowfoot, C.B.E., M.A.,
Director, British School of Archæology in Jerusalem.

I.—*Introductory.*

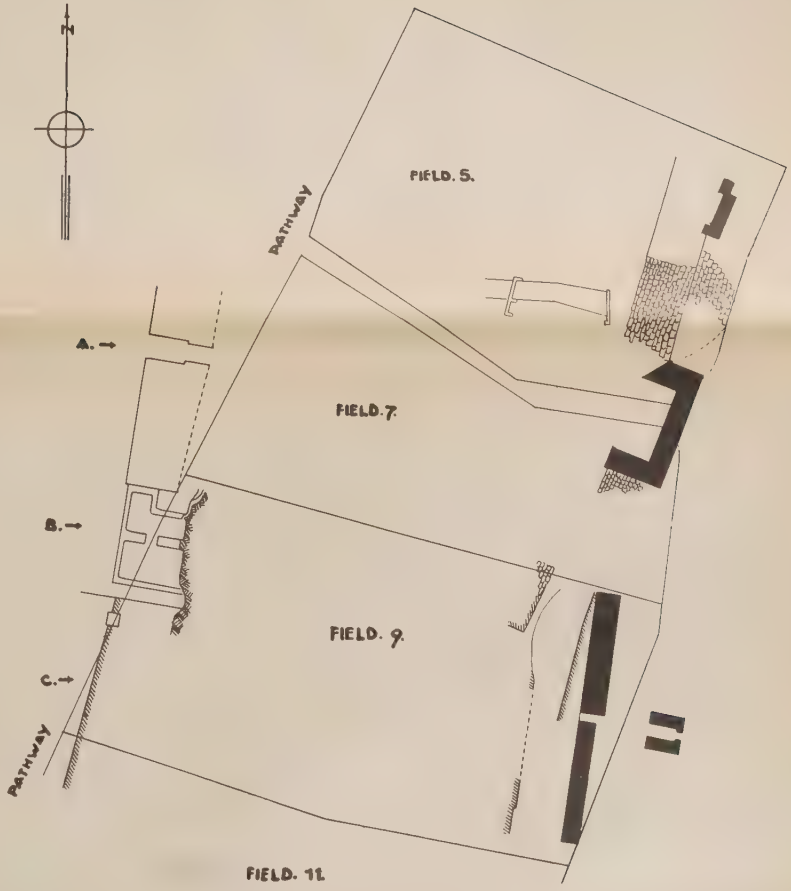
The task of filling in our excavations was not completed until January 19, but during the preceding fortnight or so we were frequently interrupted by rain and the work of excavation proper was finished on January 1. Previous to this last date we only lost six working days in all, though the autumn rains were heavier in Jerusalem than in any year since the war. The report, which was printed in the January number of the Q.S., carried the story of the campaign down to December 8: that report was necessarily tentative and fragmentary. The work of the last month, which is embodied in the present note, threw light on many points which were still obscure when the earlier note was written, but it also, inevitably, raised another crop of problems which we cannot yet solve.

The difficulties which troubled us most last year were not those against which we had to contend in 1927, when we were working above the bed of the valley. In 1927 our main difficulties arose from the limited dumping-ground at our disposition and the great depth of accumulation above the rock. In 1928 we were working on the west half of three fields which stretch across the top of the ridge, and in the middle of the ridge the rock was so near the surface that it was comparatively easy to find space for our dumps; but for this very reason work on the top of the ridge proved unprofitable, and the most interesting section of our work lay along the western boundary of our fields where the present pathway runs. One important wall ran 2 or 3 feet east of the path and at a depth of some 20 feet for more than 30 yards, and other walls belonging to

EXCAVATIONS ON OPHEL 1928

DIAGRAM TO SHOW POSITION OF EARLY BUILDINGS
N.B. THE BUILDINGS ON THE EAST SIDE OF THE HILL ARE TAKEN FROM THE PLAN PUBLISHED IN ANNUAL IV
A. GATEWAY
B. MACCABEAN (?) CISTERN
C. LINE OF AKRA(?) WALL

1:500



[To face p. 150.]

the same level extended under the path. It became apparent that we could not understand these walls unless we were able to push our excavations some way beyond our original limits. This involved negotiating with the commune of Silwan about the pathway, which is some 10 feet wide at this point.

In Silwan there are two representative assemblies—an Upper House of six, and a Lower House of fifteen—and a special meeting of the Upper House was convened to consider my application. After some discussion as to whether payment should be demanded for the favour, it was decided that it would be more dignified not to press for payment, and a written authorisation to provide a temporary deviation for the path was given me by the Clerk. This enabled us to widen our trench in front of the long wall (*Q.S.*, 1929, p. 13) and to find out the plan and the internal dimensions of the built cistern (*ib.*, p. 12) but it did not enable us to find the outer face of the cistern or to determine the original line of the city wall. To satisfy ourselves on these points would have involved a second deviation of the path, and further negotiations with cultivators and landowners which were out of the question at that time.

We shall refer to these problems again later, and I mention them now only as an illustration of the main difficulty inherent in a district like Ophel, which is cut up into a number of small holdings belonging to several owners. The problems which arise often cannot possibly be settled in the limited area at the excavator's disposal.

Another difficulty which excavators on other sites, tells in the open country, for example, do not have to face, arises from the number and size of the cisterns which one finds here. Many of these are well enough preserved to be still usable; they have a value which is immediately reflected in the selling price or rental of the field; they cannot consequently be destroyed, and the excavator is prevented from going as deep as he wishes even in the limited area over which he has control.

These are only two of the difficulties which are inseparable from work in the neighbourhood of Jerusalem. On the other hand, any information about the ancient topography of the city is so much more significant than anything that can be learnt from the majority of deserted tells that we cannot regret the time and money spent on these excavations, however fragmentary and tantalising the results.

The last campaign, as readers of the *Q.S.* already know, was entirely financed by the generosity of Sir Charles Marston. The writer has also to thank the authorities of the Hebrew University for allowing Dr. E. L. Sukenik to act as Assistant Director of the excavations. Mr. C. N. Johns, the Librarian of the British School, also rendered able assistance throughout the season.

II.—*The Natural Features of the Site.*

The present surface of the fields (Nos. 9, 11 and 13) completely hides the natural configuration of the site, which once fell into two sharply contrasted zones. About four-fifths of our area formed part of the ridge on which the city of David stood. This ridge ended in a cliff from 5 to 10 yards east of the present path, and the remaining space between the cliff and the path, *i.e.*, less than one-fifth of our area, belonged originally to the wide valley which divided the ridge from the hill now called Mount Zion. The accumulation above the ridge is comparatively slight—in places the rock is less than 3 feet below the surface ; above the valley the accumulation, even close to the ridge, is more than 20 feet in depth.

All along the fields where we were working the modern path runs in a fairly straight line about 30 degrees west of south : this direction corresponds roughly, but only roughly, with the original line of the valley. The position and appearance of the overhanging cliff in which the ridge ended in the north-west corner of Field 9 were described in the previous report (*Q.S.*, 1929, p. 10) : in profile this cliff was not unlike those which are still visible on the east side of the Kedron valley, and some idea of it may be gathered from the photograph reproduced on Plate I (p. 26). The present level of the field a few yards north of this point is 2,278 feet above sea level, the top of the rock immediately above the cliff 2,271.9 feet, and the top of the first valley terrace below it 2,257.9 feet. In the southern half of Field 11, as we have already noted (*l.c.*), there was no trace of the cliff, but in Field 13 we came across another short section of unscathed rock which was very similar in profile to the section we had found at the north end of Field 9, nearly 70 yards higher up : at this point in Field 13 the altitude of the valley terrace was 2,243.2 feet, and the top of the cliff above it, on which a Byzantine mosaic was still in position, was 2,250.6 feet. Evidence for

the original direction of the cliff in this area may be gathered from the following measurements: At the north end of Field 9 the cliff was about 16 feet from the path, 16 yards further south it was about 33 feet, 26 yards further south it was about 27 feet, and in Field 13 it was less than 10 feet away. The original line of the rock, therefore, diverged considerably from the line of the present path. The importance of this discovery will be obvious when we come to discuss the line of the city walls.

With regard to the character of the rock itself, we are fortunate in being able to quote the opinion of Dr. Blake, Geological adviser to the Palestine Government, who paid us two visits during the work. Two types of rock were distinguished on our field by Dr. Blame, *maliki* and red *mizzi*. The *maliki* was found in the upper levels and in the centre of our area: in the middle of Field 9, for example, where rock chambers had been excavated to a depth of some 20 feet below the original weathered rock surface, the whole rock from top to bottom (altitude 2,255 feet) was *maliki* with numerous fossils (*rudistæ*). "The top stone," Dr. Blake says, "is a good quality *maliki*, and remains of ancient quarries occur."

The *mizzi ahmar* was noted at two points, both in the valley; the first, in the south-west corner of Field 9, at altitude 2,242 feet; the second, in the north-west corner of the same field, at altitude 2,257.9 feet. At this last point the *mizzi*, which is of yellow and pink colour, "passes above into hard white stone resembling-*mizzi helu*, but . . . of the *maliki* type. The junction of the two types is a well-marked parting that the old wadi has eaten into."

"It is evident," Dr. Blake says, "from the three examinations made, that this part of Ophel was mainly of the *maliki* type of stone, but excavations reached down to the hard *mizzi ahmar* stone. The results correspond with exposures in other parts of the *wadi* which before had been put on the geological map as *maliki*. It belongs, therefore, to the top Cenomanian division of the Cretaceous system."

III.—*The Pre-exilic Remains.*

With the exception of the southern gate-tower, we found no buildings which we thought to be earlier than the time of the second Temple, though some of the rock-cut drains, cisterns, and chambers may be pre-exilic.

On the other hand, we found a large number of potsherds which certainly belong to the earlier period. Most of these were found in the valley zone and very close to the rock level. The most instructive discovery was made in a hole in Field 11, about 9 yards from the path and about 6 yards from the south boundary of the field. This hole started in a natural fissure, which widened out below the surface: it was irregular in shape, and its greatest dimensions were about 7 feet from north to south, about 3 feet from east to west, and about 7 feet in depth. From this hole we extracted about 900 potsherds, and these were very carefully examined by Dr. Albright as well as by Dr. Sukenik: about 90 per cent. of these sherds belonged to the time of the Jewish monarchy, the bulk of the rest to the Middle Bronze Age, and a few only to the Late Bronze. In the whole cache there was nothing post-exilic, though the remains immediately above the rock belonged to the late Byzantine period. The significance of this find is unmistakeable: it shows that at this point the level of occupation in post-exilic days was what it had been in the time of the monarchy, and that the first occupants after the exile made a careful clearance all over the rock, sweeping away the small rubbish that had gathered after the Babylonian destruction before any later rubbish had accumulated. Similar finds on a much smaller scale were made elsewhere, but always close to the surface of the rock, and the thoroughness of the clearance which this proves explains why we found no remains of early buildings on the site.

Although, however, the level of occupation was the same before and after the exile over the greater part of our area, we did find in one place (No. 43) clear indication of an old level preceding that of the Hellenistic time. This was described in detail in my earlier report (*Q.S.*, 1929, p. 14), and it is unnecessary to repeat again what has already been printed. A view of the strata is published in this number on Plate III, which shows (1) the rock, here of *mizzi ahmar*, altitude 2,242 feet; (2), a band of black soil, 34 inches thick, containing a good deal of organic matter; and (3) between this dark band and the foundation course of the Hellenistic wall, a band 27 inches thick, composed of building rubbish which, it is suggested, comes from the Babylonian destruction.

We turn now to the south-east corner of the south tower belonging to the gateway discovered in 1927 on the other side of the path in

Field 10. The corner which we found in the latter half of December was only about 8 feet from the cliff, and the bottom stone at the corner rested on the outer edge of the first valley shelf (altitude 2,257.8 feet), the rock falling away to the west from this point (Plate I). Only two courses of the towers were still standing at the very corner, the stones were all of *mizzi*, dressed like the *mizzi* blocks we had seen in other parts of the tower, and the masonry was of the same rather indeterminate character. The stones were drawn and measured by Mr. Reiss: the regular courses were on the average rather over 20 inches in height, and two of the blocks were over 4 feet long, dimensions which correspond fairly well with those found in 1927 in other parts of the tower where *mizzi* blocks predominated. Potsherds of the period of the monarchy were found on the rock both south and east of the tower, and above them fragments of the Hellenistic period, but no fresh evidence was forthcoming which would fix the date of the towers more closely.

The gateway and the towers which flanked it are meaningless, unless they formed parts of a city wall, but the only buildings which we found to the south are different in character, and belong, in our view, to a later date. Except under the modern terrace wall dividing Field 11 from Field 13, we probed down to the rock all along the western edge of the three fields, and we found no trace of any construction which could be regarded as a city wall of the pre-exilic period, though we did find some very large *mizzi* blocks, some in the south wall of the built cistern (*see below*), and some in a Byzantine house above it, which may have been cut originally for a wall contemporaneous with the towers. Are we to suppose then that the city wall south of the tower was entirely destroyed when, or before, the later buildings which we shall study in the next section were erected? It seems more likely that the outer west wall of the cistern, of which we could only obtain the merest glimpse, may be part of the old city wall. In this case, the city wall projected considerably further west than the towers, which would be recessed back from it, and the wall shown on our plan of 1927 running perpendicular to the south-west corner of the south tower may be of the same date as the tower, and not as we then thought, much later. This is, of course, only a conjecture which cannot be proved or disproved until further excavations have been made on the other side of the path, preferably both north and south of Field 10;

and even excavations, it must be admitted, may be inconclusive if the wall has been entirely destroyed. But it is a conjecture which offers us a line of walling which is quite intelligible in view of the lie of the land. The present pathway, as we have already seen, does not follow the line of the cliff which curves round towards it only in Field 13; a city wall built on the line we have suggested would, therefore, enclose a good deal more of the valley, including the part represented by the earlier level described above (No. 43), and gives more space correspondingly to the city. Is this an objection? It seems to me rather to be an additional argument in favour of this hypothesis.

IV.—*The Period of the Second Temple.*

The period which is covered by this section includes all the time between the return from the exile and the destruction of Titus in A.D. 70. Two important buildings belonging to this period were discovered, together with a number of small objects, potsherds, coins, and carved fragments, but the small objects will be mentioned now only incidentally in so far as they throw light on the buildings. The rock-cut drains, cisterns, and chambers, similarly will be reserved for a later report. The two buildings with which we are immediately concerned were both found in the valley strip: the most northerly of the two, a large double cistern, abutted on the south wall of the Gate tower; the second, a long wall, ran along the line of the path over a distance of 31 yards south of the cistern. The wall is the older of the two, and to this we will turn first.

(a) *The Long Wall.*—The wall, as we have said, was traced over a distance of 31 yards, but at two points in this distance later constructions had destroyed every vestige of it, and over a length of more than 16 feet it ran beneath a massive flight of steps which we decided not to remove. We actually saw the wall, therefore, for about two-thirds of the total length (Plate II).

Not more than two courses were visible anywhere,[1] and of them the lower one was clearly a foundation course. The stones were all *maliki*, and a thick bed of white stone chips, from 6 to 10

[1] There is an apparent exception to this at the north end of the wall, where for a few feet, there are two courses of rough *mizzi* blocks above the usual two foundation courses.

inches deep, lay against, under, and for about 3 feet, in front of, the bottom course. These chips almost certainly came from the *maliki* stones of which the wall was built, and their presence suggests that the wall was constructed of new material, quarried near at hand, and dressed on the spot. In the upper course, the stones were for the most part laid alternately as headers and stretchers, though in places two, and sometimes three, headers were laid together; in the bottom course headers tend to predominate, and in one place five were laid together. The bond is not unlike what bricklayers call the Flemish bond, and it is that which was in use at Samaria from the time of Ahab (Fisher, in *Harvard Excavations at Samaria*). The stones, however, are not like the stones in the buildings of Ahab; they have been very roughly squared, and there is no trace of any attempt at drafting, and it is possible that neither of the two courses which have survived was intended to be seen.

The most northerly section of the wall measures over 10 feet in length, and lies between the old cistern and a smaller cistern of much later date. The north end of this piece of walling rests on a projecting boulder of rock, and the outer wall of the old cistern was built over our wall, evidently at a subsequent date. One Rhodian jar-handle was found in front of this section.

The late cistern just mentioned (No. 47) was built on the rock, and had destroyed all trace of our wall for over 7 feet.

South of this cistern the wall was seen for nearly 10 feet. Only one course, composed mainly of headers, had survived here, and beneath this course there was an accumulation some 3 feet in thickness between the wall and the rock. In this accumulation traces of other walls running from east to west were seen beneath our wall, but they were of very poor construction. In the debris another Rhodian jar-handle and various objects of the Roman and Byzantine periods were found: as the floor of the Byzantine basement level is only about 2 feet above the top of the wall, this admixture is not surprising. An important find was made in the middle of the band of white stone chips close to the wall; this was a small hoard of 24 Seleucid copper coins. The coins were stuck together, and were in a bad state of preservation, but, in the opinion of Dr. G. F. Hill, the fabric shows that they are not later than the time of Antiochus IV, and probably all belong to the reign of Antiochus III, whose portrait can be recognised on one of them. As they were found in

the middle of the stonechips, it is almost certain that they must have been dropped while the wall was in building, and we, therefore, obtain a valuable clue to the date of the wall.

The third section ran south of the massive Byzantine stairway which we decided not to remove. This section measured 12 feet in length, and it was under this section of the wall that we found the lower level of occupation which is mentioned on p. 154 (Plate III). The rock was very uneven here; in places it rose to within 3 feet of the bottom of the wall, in others it was nearly 6 feet below it, but there was no trace of any earlier wall in the intervening space. The small finds made in this section also were instructive: there was a little pottery of the Monarchy period close to the rock in one place, masses of pottery of the Persian period immediately under the wall in another, in a third spot just west of the wall there were four large four-handled jars of the Hellenistic period. Here, too, a Byzantine threshold was only about 2 feet above the top of the wall, and there was the usual mixture of Byzantine objects in the stratum immediately above the white band, a stratum which was composed mainly of building-refuse, and resembled on a small scale the zone of destruction which we found in the middle of the valley in 1927.

The section just described was broken by a massive wall of the Byzantine period, and beyond this we picked up another section about 6 feet long, which had been utilized, probably in the Middle Ages, as the east wall of a cistern running under the pathway. Here as elsewhere not more than two courses of the wall remained: the bottom one rested on a filling of smaller stones 19 inches high, and below this filling the rock had been scarped back perpendicularly, perhaps by the mediæval (?) builders of the cistern. This section came to an abrupt end before it reached the south wall of the cistern, and we came upon no other trace of the wall either in Field 11 or Field 13.

Although we followed the west face of the wall over such a considerable distance, we found no trace in any section of the east face, and, consequently, we cannot say how wide it was. In one place, the masonry behind the west face reached back more than $6\frac{1}{2}$ feet, but at this point it ended against the rising slope of the rock, and the upper courses may conceivably have been much wider. It was in any case a well-built wall of substantial dimensions.

About the approximate date of this wall there can be no doubt:

the small hoard of coins of Antiochus III. found in the white band proves that the wall must have been constructed while these coins were still in circulation, and several other small finds corroborate this date. Antiochus III. died in 187 B.C., so the wall cannot be more than twenty or thirty years later than this. Antiochus III. himself is not known to have built anything at Jerusalem : the relations of his son and immediate successor, Seleucus IV., with the Jews were chequered, but there is no record or likelihood of the erection of great buildings in Jerusalem during his reign (187-175 B.C.). The successor of Seleucus IV. was the " wicked root " mentioned in 1 Macc. i., 10, the builder in 168 B.C. of the famous citadel or Akra, Antiochus IV. Epiphanes, another son of Antiochus III. All the chronological indications that we have found suggest that the long wall we have described is most probably to be identified as part of this Akra.

If this identification is accepted, one of the most disputed questions in the topography of ancient Jerusalem will be finally settled. A large literature has gathered round this subject, and a great many alternative sites have been suggested, but we shall content ourselves now with quoting the two most important ancient passages which mention the Akra and referring to the salient points at issue.

In 1 Macc. i., 33-36, the following account occurs :—" Then builded they the city of David with a great and strong wall, and with mighty towers, and made it a stronghold for them. And they put therein a sinful nation, wicked men, and fortified themselves therein. They stored it also with armour and victuals, and when they had gathered together the spoils of Jerusalem, they laid them up there, and so they became a sore snare : For it was a place to lie in wait against the sanctuary, and an evil adversary to Israel."

Josephus (*Ant. XII*, V, 4), describing the same event, writes :— " He built a citadel in the lower part of the city, for the place was high, and overlooked the temple, on which account he fortified it with high walls and towers, and put into it a garrison of Macedonians."

It is obvious that if the Akra was in the City of David as 1 Macc. i. says,—it cannot ever have overlooked the Temple, unless the city of David is transferred to one of the other hills, or some tremendous levelling operations, of which there is no evidence whatever,

were carried out on our hill. The second of these alternatives, though it was that adopted by Josephus (*Ant. XIII, VI*, 7, and the *Jewish War, VI*, 2) is obviously out of the question: the first has been recently put forward by Pere Abel, who suggests that between the time of Nehemiah and the Maccabees, the name "city of David" may have been transferred to some other hill (*Revue Biblique*, 1926, p. 520). The suggestion does not seem probable: the site of the tomb of David was known at least down to the time of Hadrian (Dion Cassius, LXIX, 14), and it is difficult to see how the site of his city, with which his tomb was always connected, could have been forgotten or transferred between the time of Nehemiah and the Maccabees. We prefer to interpret, with Schürer (I. 5, p. 198) and many other critics, the account in 1 Macc. i. in the simple literal sense, and to assume that the position was misunderstood by Josephus.

We may sum up the facts very briefly as follows:—There is no evidence on Ophel of the inconceivably vast levelling operations described by Josephus, and the hill of Ophel can never have overlooked the Temple. On the other hand, we have found "a great and strong wall with mighty towers" in the "city of David," and we have found independent evidence that this wall was a new work built in the period to which the book of Maccabees refers and, as shown in *Annual* V, that the "mighty towers" near it were repaired in the Maccabean period.

The case for the identification seems to be a strong one, but we may add one other small point. In the last excavation we found a few Rhodian jar-handles; in 1927 about 40 more came to light, and in the 1923-25 campaigns more than 400 were discovered. There is no other quarter of Jerusalem where any comparable number of these jar-handles has been found: on the other hand, at Gezer and Samaria, both Syrian garrison towns, even greater numbers were found. It seems not unreasonable to suppose that in each case they were relics of the Macedonian garrison's wine rations, and that their presence in this quarter of Jerusalem is another indication that the Akra was situated here.

If the wall and towers we have been discussing were part of the western defence of the garrison, where is the corresponding wall on the east side of the ridge? Can it be the "Post-exilic" wall described by Mr. Duncan in *Annual* IV, pp. 69? In default

of further details the description referred to hardly enables one to answer this question with any confidence, but I am inclined to

FIG. 1.—DRAWING OF THE SOUTH FACE OF THE EAST END OF THE NORTH WALL OF CISTERN. LOOKING NORTH.

think that part at least of Mr. Duncan's wall belonged to the same building.

(b) *The Cistern.*—Immediately south of the towers we found the remains of a large double cistern. This cistern lay on the

extreme edge of our area, and extended in fact beyond it; even after diverting the public pathway we were unable to reach the outer face of the west wall of the cistern, and cannot say how thick it was; if we may judge from our trench at the south-west corner, it was at least 13 feet thick, and it may have been as thick as the gate towers.

This cistern was partly built and partly excavated in the rock. At this point in the valley the rock ran originally, as we have said elsewhere, in an-S-shaped curve from the crest of the ridge, forming a sort of low natural shelter such as you can see in many places on the east of the Kedron valley (Plate IV). At the bottom of this initial drop there was a level ledge some 6 or 9 feet wide, which still exists north of the cistern and behind the tower gates, and beyond the ledge the rock shelved down again towards the valley. The builders of the cistern cut back the curved face of the rock, and cut away the ledge below it to a depth of more than 6 feet, as will be seen from the drawing reproduced on p. 161.

The cistern (*see* Plan) was rather irregular in shape, and was divided into two parts by buttresses projecting from the middle of the east and west sides, respectively, which may have carried a roof. It measured internally more than 39 feet from north to south, and nearly 29 feet from east to west. The east side of the cistern was formed by the scarp; the walls on the other three sides, except for a small section at the north-east corner, were double, consisting of an inner wall, which was carefully built with a fine black mortar made of lime and ashes, and an outer portion, which varied in character, but was always more massive, and contained no lime mortar. On the south side the outer wall was about 65 inches thick, and the inner wall 25½ inches; on the west side, at the only point where we could get any measurements, the outer wall, to which we shall return later, was at least 13 feet thick, and the inner wall about 25½ inches; on the north side the inner wall was 35½ inches thick, and abutted directly on the south wall of the gate tower, except in the space between the gate tower and the cliff. The buttresses were constructed like the inner walls, but were about 51 inches thick. The inner face of the inner walls, the buttresses and the scarp between them, were all covered with a thick coat of grey plaster which we found practically intact everywhere, and all the internal corners were carefully rounded. Plate V shows

the part of the north wall which is closest to the scarp; it was made after the plaster had been stripped off the wall and the rock below it, and gives an excellent idea of the original contour of the cliff. The part of the ledge under the buttresses was not cut away, and so it is clear that the buttresses were part of the original plan.

This illustration shows us also what the masonry of the inner walls looked like. The wall is built in tolerably straight courses, and, as in the so-called "English" bond, the courses with some exceptions are alternately composed of headers and stretchers, each course being one stretcher and one header in thickness. According to Dr. Fisher, masonry of this type is found in the early post-Israelite period at Samaria (*Harvard Excavations at Samaria*, p. 130), but it is found frequently later, and is common in the Roman period.

The stones have been only roughly squared and dressed, and practically all are *maliki* (Plate VI). Where any tooling is visible, the implement used was the broad-faced adze which we find as early as the time of Ahab at Samaria (*Harvard Excavations*, p. 105, Plate 276) and as late as the Maccabean period in Jerusalem. A curious feature which is especially noticeable in the headers is the bevelling of the edges on the vertical sides: the spaces thus made were filled with small stones, and the object of the bevelling no doubt was to provide a better keying for the plaster.

Both in dressing and in disposition the blocks in this wall are very like the two rows of headers found in 1927 in the middle of the tower on the north side of the gate (*Annual*, V), and the third course from the top of the so-called Solomonic tower on the east side of the ridge (*Annual*, IV, p. 56).

Fortunately, we can date the cistern rather more closely than the other two buildings to which reference has just been made. While stripping the plaster, we observed several tiny fragments of pottery in the mortar between the stones, and decided accordingly to pull to pieces a small section of the wall abutting on the tower; embedded in the mortar here we found a great many fragments of pottery, and the bottom half of a lachrymatory, all of them belonging to the Hellenistic period. There can be little doubt in our opinion that the cistern belongs to the end of the 2nd or the beginning of the 1st century B.C. The plaster appears to have been of two periods: in one place in it two coins of Alexander Jannæus was found, but in

another a coin of the First Revolt. The accumulations close to the cliff immediately north and south of the cistern were consistent with this date. North of the north wall there was a trench cut in the rock from 15¾ inches to 19¾ inches wide, about 23¾ inches below the level of the adjacent rock, and about 9 feet 10 inches long; in this trench we found a jar-handle with a pentagram, belonging probably to the 5th century B.C., and several fragments of ring-burnished ware and hole-mouthed pots, which may belong to the 6th or 7th centuries. Above these a few Hellenistic pieces were found, and a lamp with turnover lips. The north face of the north wall (*see* Plate I, *Q.S.*, January, 1929) was very poorly constructed compared with the inner face, and it seems certain that it was not built to be exposed; either an outer wall was to have been built against it, or it was banked up with stones and debris and the surface level outside raised two or three metres, perhaps, above the rock level. On the south side of the cistern an outer wall about 5 feet 5 inches thick was in existence, widening towards the bottom; this, too, was poorly constructed, and evidently here, too, it lay below the surface level; in the debris we found as at the north end a few Hebrew potsherds at the very bottom, above them a much greater quantity of Hellenistic fragments, with which a little Herodian or Roman ware was mixed; a Ptolemaic coin was also found here. On both sides, therefore, the walls appear to have been built in the middle of a stratum which had been formed in the Hellenistic period.

Inside the cistern, on the other hand, there was very little of the Hellenistic or earlier periods, but for 6 or 9 feet from the bottom there was an enormous quantity of Herodian and early Roman ware, and one or two architectural fragments of the same time. We conclude from this that the cistern had been in use until the time of Titus, and that it fell in disuse after this period, like the neighbouring gate. For the next two or three centuries this district lay outside the circuit of the city of Aelia Capitolina, which supplemented Jerusalem, and when in course of time it was reoccupied, our cistern must have been half-buried beneath the rubbish which had accumulated after the siege, and was too ruinous to be worth restoring.

(c) *The Long Wall and the Cistern.*—The evidence given in the two previous sections shows that both the long wall and the cistern were built in the same century, but it seems probable that the two buildings were never standing together at one and the same time.

The outer section of the south wall of the cistern was built over the end of the long wall, and the latter must therefore have been destroyed in part at least before the cistern was made. We found, however, that the wall throughout its length was reduced everywhere to approximately the same height, all but the two bottom courses being razed to the ground, and there is reason to think that the destruction had been carried out all along before the construction of the cistern. There are two archæological indications of the order of events. In the first place, the *debris* between the level of the Byzantine basement rooms some 2 or 3 feet higher did not, so far as we could see, come from the ruins of the wall: it was mostly composed of small stones coming from ordinary houses. Secondly, whereas the long wall, as we learnt from the broad band of white chips, was built out of new material, the stones of which the inner walls of the cistern were built gave one the impression of old material re-used; and inasmuch as they were, like those in the long wall, of *maliki*, and cut to much the same dimensions, the presumption is that they were taken from the wall when the cistern was built. It is true that in the wall there are several stones which are a little larger than all but one or two in the cistern, but they were cut for the two bottom courses where the largest stones would be naturally preferred, and all the stones in the cistern *might* have been used in the upper courses of the wall. The archæological evidence, therefore, suggests that the wall was pulled down at a single time and the cistern constructed out of the same material.

This suggestion tallies very well with all that we know or can infer about the later history of the Akra. After the evacuation of the Macedonian garrison, Simon, according to 1 Macc. xiii, 50 sq., "cleansed the tower from pollutions and entered into it . . . with thanksgiving, and branches of palm trees," etc. "Moreover the hill of the temple that was by the tower he made stronger than it was, and there he dwelt himself with his company." From this passage and the parallel passage in the next chapter, (ch. xiv, 36 sq.), it appears that the national Jewish garrison was henceforth stationed in a new fort on the temple hill, and the Syrian Akra in the city of David was consequently no longer wanted as a fortress. The book of Maccabees says nothing about the destruction of the Akra, but there was probably some substratum of truth in the fantastic story of Josephus, and we may reasonably assume that the Akra

was razed to the ground by Simon or one of his successors and the materials utilised for the construction of our cistern.

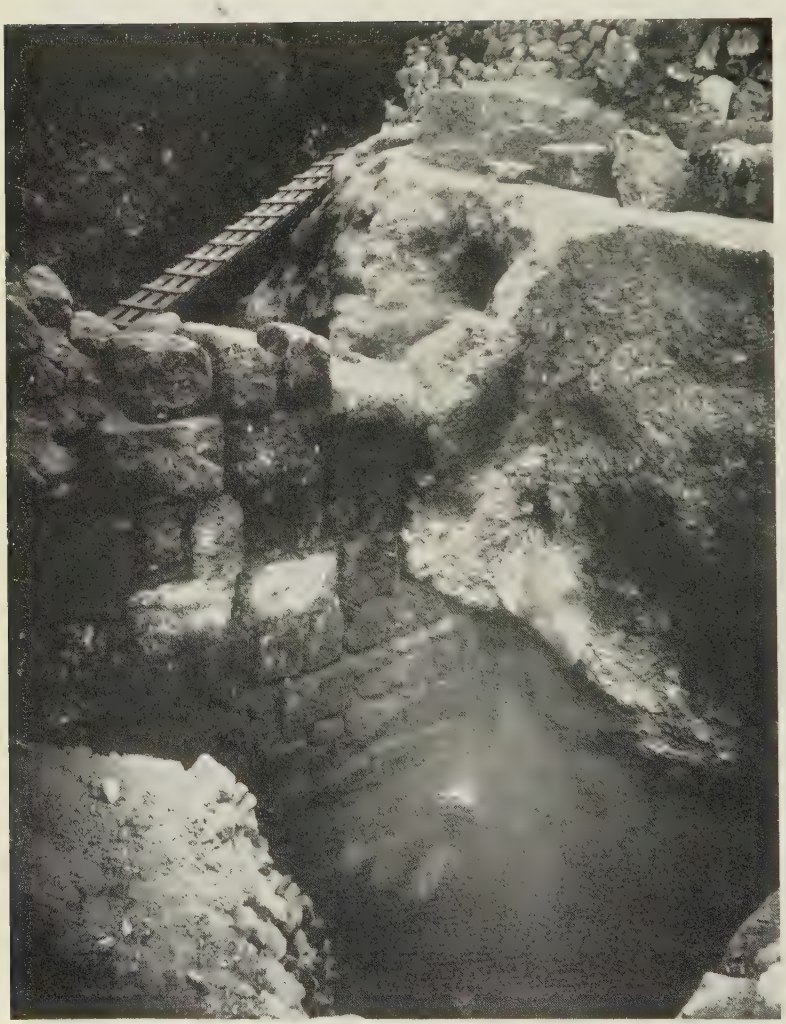
Conclusion.—The "period of the Second Temple" includes the years which are covered by the Gospels and Acts, and most supporters of the P.E.F. will value above all else any authentic additions to our knowledge of the Jerusalem of those years. In the time of Christ, as we already knew, Jerusalem was in large part a new and brilliant city, adorned by Herod with the public buildings and places of amusement which Antiochus and his supporters had vainly tried to acclimatise nearly two hundred years before. Some relics of Herodian Jerusalem, the Temple area substructures and the "tower of David," have never disappeared, and their superb masonry gives us one idea of what the new Jerusalem of that period must have looked like. On Ophel[2] itself there were new palaces built by rich converts to Judaism, and there was also the monument built by Herod over the tomb of "the patriarch David," "whose sepulchre," in S. Peter's words, "is with us to this day" (Acts ii, 29). But we have learnt from the recent campaigns of the Fund that there are other elements to be added before the picture is complete. The cistern, a rough piece of masonry, but built in accordance with good rules and traditions, belonged to the time of the Maccabean dynasty and was still in use. The gateway with its towers, cruder still and in more primitive style, reached back to the time of the kings of Judah. Behind the gateway the rock still rose as it had risen in the time of David. The changes which Herod and his contemporaries introduced were very great, but in this part of the city they had not blotted out all the works of earlier generations or hidden the natural contour of the land. It was only in the Byzantine and Arab periods that the face of the earth here began to assume its present features; in the time of Christ, and the first Apostles there were still many vestiges of older orders left above ground, surviving like the Roman and mediæval buildings in many of our modern cities.

[2] I use "Ophel" in the common sense used by most archæologists.

Looking North. View of South East Corner of the South Gate Tower, showing how it rests on a Boulder of Rock.

LOOKING NORTH. VIEW OF LONG WALL, SHOWING BYZANTINE THRESHOLD LAID ABOVE IT, AND TWO FLIGHTS OF STEPS OF THE BYZANTINE PERIOD (SIXTH CENTURY A.D.)

LOOKING SOUTH. [VIEW OF LONGEST SECTION OF THE LONG WALL, AFTER THE BYZANTINE THRESHOLD HAD BEEN REMOVED.



LOOKING NORTH-EAST. VIEW OF EAST SECTION NORTH WALL IN CISTERN (SOUTH FACE).

LOOKING NORTH. VIEW OF CISTERN BEFORE THE PLASTER HAD BEEN STRIPPED FROM THE WALLS. ON THE LEFT, THE WEST BUTTRESS WALL; IN CENTRE, THE THREE COURSES OF WHITE MIZZI STONES ARE PART OF THE TOWER; ON RIGHT, THE EAST SECTION OF THE NORTH CISTERN WALL.

OPHEL: CISTERN LOOKING NORTH-EAST. VIEW OF CORNER OF EAST SECTION OF NORTH WALL.

NOTES ON MONASTIC RESEARCH IN THE JUDÆAN WILDERNESS, 1928-9.

By Michael Marcoff and Rev. D. J. Chitty.[1]

(1) *Wady Suweinît.*

The existence of a *laura* in the gorge between Geba and Michmash had already been pointed out by Père Lagrange, in the *Revue Biblique* for 1895, where the identification with the Laura of St. Firmin was also proposed. But the chief groups of caves were not unreasonably described as inaccessible, and the buildings on top of the northern cliff were not recorded. In the spring of 1928 Mr. Marcoff succeeded at considerable risk in entering the most important groups of caves, and in view of his discoveries we spent some days encamped in the *wady* in August, 1928, for further exploration.

Just below the crossing from Michmash to Geba, the Wady Suweinît tumbles into a rock-girt valley. The cliffs of soft limestone which deploy from this point face each other for some miles, about 300 yards apart, and half-way up the steep sides of the valley. They are some 40 metres high, and full of caves, very many of which have been employed for hermits' cells. Most of the groups of cells are on the north side of the valley, but there are a few important cells on the south. There are four main groups on the north, and the area of the cells extends for about a mile. That known and marked on the maps as El-'Aleiliyât is the central and most important group. There is an interesting small group, opposite this, on the

[1]This report does not profess to be more than an interim summary of results of monastic exploration in the Judæan Wilderness carried out during the last year by Mr. Michael Marcoff, or, in some cases, by myself in his company. Mr. H. C. Alexander, of the Jerusalem Men's College, also took a leading part in the work on several occasions. We hope to produce a fuller report later, particularly of Wady Suweinît. Although I have found it more convenient in places to refer to myself in the first person, I am for the most part only editing material provided by Mr. Marcoff, adding the historical evidence.—D. J. C.

south side of the valley. Half a mile further down the valley, on the summit of the southern cliff, is an *'ain* at the foot of a short slanting tunnel, apparently the only water-supply apart from cisterns.

The top of the northern cliff is lined with various monastic buildings, including a small Church; and a ruin on the hill-top behind is known as Khirbet ed-Duweir (*duweir* = little monastery). We defer a final report on the Laura until we have examined this ruin closely, as it is likely to prove the central point. Phocylides, in his history of Mar Saba, definitely asserts its connection with the Laura; and this combination of hill-top ruin and caves to form a single Laura is found elsewhere.

Firmin was a disciple of St. Saba, in whose life he is mentioned as founder of a *laura* in the region (ἐπὶ τὰ μέρη) of Machmas. From the same life we learn that this *laura* became a centre of Origenism in the next generation, but, supporting Protoctist or Tetradite Origenism against the Isochristic doctrine of the New Laura, finally made a compact with the Orthodox against the Isochrists, which resulted in the triumph of Orthodoxy. There is some evidence that Isidore, the *hegoumen* of St. Firmin, who made this compact, binding himself to silence on his speculations, was honoured as a saint at Geba.

The 'Aleiliyât group, shown in the photograph (Fig. 1) which is taken from 300 yards away on the opposite side of the valley, is really two separate groups in a single cliff, and there is no direct approach from one group to the other, in spite of their close proximity.[1]

The right-hand eastern group consists really of a single long terrace-cave, with an overhanging cliff-roof extending out some 5 metres beyond the line of the outer edge of the platform. The cave may be divided into three parts, of which the western part is clearly the monk's abode. This includes a cell, about 2 metres long, 2 metres high, and 1.6 metres deep, with a square-headed doorway, crosses painted in red, and on the right of the entrance a rough representation of a man with hands raised in prayer;

[1] The arrows A point to the figure of Mr. Marcoff approaching the western group of cells by the narrow ledge which is the only means of access. The arrows B point to the door of the Baptistery in the centre of the long eastern cave.

also fragments of an inscription, apparently in Greek. In the centre of the roof of the cell is a loop-hole, perhaps for a rope on the end of which the most extreme ascetics would lean for their sole sleep. To the west of the entrance to the cell is a semicircular rock-cut couch, which may have been the bed of a disciple of the elder of the cell. West of this is a deeper, rougher, but still shaped chamber, which perhaps served as an oratory. In front of this lies the only means of access to the cave—a two-pronged post left by the last inhabitant, fixed in position with stones at the top of a gully. To reach this, up the 60 feet of cliff on top of which it is, Mr. Marcoff had to climb up as far as it was possible, then when the crumbling and perpendicular or overhanging nature of the cliff rendered further climbing impossible, to lasso the post with a rope thrown up from some 10 feet below it. But remains of a stout wall at the foot of the cliff may mean that in the more prosperous days of the monastery there was an easier entrance.

East of this is the central part of the cave, which forms a long arc of a circle, some 20 metres long. In the very centre of this a square-headed doorway stands at the entry to the most interesting of our discoveries ; the rock behind the doorway is hollowed out in the form of a semi-dome to give access, down a flight of 11 steps, to a roughly cubical chamber, whose roof is only about half a metre above the level of the threshold. The whole of this chamber was plastered with grey cement, and there are two watermarks, about waist-high, round the wall at the bottom of the steps. Twice round the rim of the apsidal entrance, and at least once on the wall of the chamber, the words "*The Voice of the Lord is on the waters,*" in Syriac, are painted in red. This quotation from Ps. xxix, 3, occurs in the baptismal liturgy, and is found in Greek at the head of a cistern in the Church of the Holy Sepulchre.[1] We can have little doubt that the chamber is a baptistery. Strange as the situation may appear, we can cite a definite historical parallel : Peter Aspebet and his tribesmen were baptised by St. Euthymius in a small baptistery (*κολυμβήθρα*) made for the purpose *inside* the cave at Deir Mukelik (*Vita Euthymii*, 13). Our baptistery was, of course, for adults.

East of this division of the cave, approached by a very narrow

[1] See Prof. Burkitt's note at the end of the article.

ledge, is a shorter, narrower terrace, with a small oil-press, and a cistern on the walls of which are scribbled a pentagon, and an inscription which we have not yet succeeded in deciphering, photographing, or copying properly. It is not in the same script as those in the baptistery.

It is interesting to note that on the walls of the baptistery there is proof of two different dates in two different types of crosses. One (pronged) is contemporary with the inscription and the plaster, breaking off where the plaster breaks: the later (hammer-headed) type is frequently found continued across the rock where the plaster is broken off. (Figs. 3, 4, 5.)

The western group of cells in 'Aleiliyât was apparently used only for dwelling purposes; no crosses or inscriptions could be found. As can be seen from the photograph, the caves are on six different levels. They are connected with each other by an exceedingly interesting system of steps and tunnels. These and the seven cells themselves are for the most part very well cut. The cells have doors and windows, and sometimes cisterns in their floors. The whole leaves an impression of a love of neatness and symmetry in their ascetic inhabitants. There is only one somewhat spectacular means of access, from the left by a ledge, never more than 1 foot wide and not continuous, for some 10 yards along the face of the cliff, which is sheer above and below, and does not provide good hand-holds. At the eastern end of this is a platform, on which is a doorway into a cell from which a staircase within the cliff leads up to a second cell. But the more important entry is further along the same platform, where it is necessary to hoist one's self up by one's arms into a hole less than a metre in diameter just above one's head, and to crawl through a tunnel leading to the right, then up three steps on to a platform at the mouth of a cell from which there is easy access to the other four cells by steps, etc.

Features of interest in the other groups of cells must wait for a more complete report. There are buildings of interest directly above 'Aleiliyât, but the most important cliff-top building is a little further along to the east, at the head of the only path for a very long distance by which one can climb from the bottom to the top of the cliff. The building is a rectangular platform built against the slope of the hill, some 20 metres long by 12 metres broad; containing on its southern side a cistern formerly barrel-vaulted; on its northern

a small church, about 17 metres by 9 metres, with a single internal apse contained in a rectangular extension to the east. Tesserae of fine coloured mosaic gave us evidence of a pattern in the floor of the Church.

(2) *The New Laura and Susakîm.*

The New Laura near Tekoa was founded by discontented monks from Mar Saba in 508 A.D. on the site of the destroyed Coenobium of Romanus the Monophysite. Susakîm was the haunt of the hermit St. Cyriac from 536-43 A.D., and again from 548-56 A.D. It will be well first to quote the passages on which the identification of these sites depends :—

A. *Vita Euthymii*, 33.—"Two monks left the community of Elpidius, persisting in the delusion [of Monophysitism when Orthodoxy was returning to its own in Palestine, 454-8 A.D.] Marcian and Romanus by name, who established coenobia, the former in the region of (περὶ τὴν) the holy Bethlehem, the latter by the (ἐπὶ τὴν) village Thekoa."

B. *Vita Euthymii*, 47.—"All the multitude of the Aposchists communicated [with the Catholic Church after the promulgation of the Henoticon of Zeno, *c.* 484 A.D.] except Gerontius . . . and Romanus the founder of the monastery by (ἐπὶ) Thekoa, who . . . were expelled from their own monasteries. . . ."

C. *Vita Sabae*, 36.—"But they [the malcontents from Mar Saba] not being received [at Souka] retired to the wady to the south (κατὰ νότου) of Thekoa, where (εἰς ὃν) they stayed, having found water and traces of cells built formerly by the Aposchists, and founding for themselves cells they named the locality New Laura. . . . But when a short time had passed by, St. Saba learning where his deserter disciples were staying, took the beasts of the Laura and of Castellium laden with materials, and went off to them. But some of them seeing him coming said to each other, 'Look, that wry fellow[1], has come here too.' But the saintly old man realised that they were in great straits from having neither Church nor head,

[1] στραβός—literally "cross-eyed."

but were going for their Communions each Sunday to the Propheteum of St. Amos in Thekoa, and were in the disorder of anarchy, and moreover were contending and at variance with each other. So he had compassion on them and referred their affairs to the Patriarch and besought him to set them in order. The Patriarch gave him 1 litre of gold in cash, and gave him also the authority over that place, and those who dwelt in it, as being members of his community. So the divine old man went down to them with craftsmen and all necessaries, and spending five months with them he built them a bakery and a Church, which he furnished and consecrated in the 69th year of his age" [508 A.D.].

D. *Vita Cyriaci*, 10.—[Cyriac leaving Rouba] "entered into a place utterly desert and hidden away where none of the anchorites was staying. And the place is named by the natives Susakîm, where both wadys are joined together, that from the New Laura and that from the Laura of Souka, being very deep and very fearful. Some say these are the rivers about which David in the magnifyings he addresses to God says 'Thou hast dried up the rivers of Etham'" (Ps. lxxiv., 15).

E. *Vita Cyriaci* 15.—[Cyril of Scythopolis comes to Souka] "and taking his [Cyriac's] disciple John, I went down to Susakîm. And this place is 90 stades distant from the Laura of Souka."

The New Laura is most famous in history as the centre of Isochristic Origenism in the twenty years before the Fifth Oecumenical Council, after which the Origenists were expelled and replaced by Orthodox monks, including our biographer Cyril of Scythopolis. But his account of these times does not add to our information as to the site.

The site of the New Laura has been a vexed question. If we had not the *Life of St. Cyriac* we should only know that it lay in or near a wady near and more or less to the south of Tekoa. The wady which would then most naturally suggest itself would be the Wady el-Jihâr, the only gorge truly south of Tekoa. As seen from that village it seems to invite the establishment of a *laura*. But the nearest monastic remains in it are 4 miles from Tekoa: Mr.

Marcoff reports important ruins of monastic appearance unmarked on the map at the junction of Wady Jihâr with the small wady on its right bank north of Bir el-Mûnaseh (100 W 24 in artillery squares on sheet XXI. of the Ordnance Map). The distance from Tekoa in any case is too great. He reports that Khirbet el-Minyeh, whose position would be more in keeping with the evidence, is a Byzantine ruin, but too small for a *laura*.

The very important ruins of a *laura* at Umm el-'Amed (sheet XXI., square 100 V 29) are without identification, and *faute de mieux* the Dominicans of the École Biblique had wished to place the New Laura here. This would satisfy our idea of the importance of the place, but it also is rather too far away, and could not well be called south of Tekoa.

In any case, both Umm el-'Amed and the Wady el-Jihâr are put out of court at once by the evidence of the *Life of St. Cyriac*. Cyril of Scythopolis had been living at the New Laura himself for two years before he published his earliest biography, and it is impossible to suppose him in error as to its topography.

A glance at the map is sufficient to reveal that a confluence 90 stades (about 9 miles) from Souka (Khirbet Khareitûn) of two wadys, one of which is the Wady Mu'allak Khareitûn, while the other flows from a *laura* in any case not far from Tekoa, can only be the confluence with the Wady Mukta' el-Juss. The New Laura must therefore be sought near the head of one of the confluents of this wady—Wady Bassûs, Wady Dannûn, and Wady Menka'. The latter is the largest of the three, and the fact that it flows from Tekoa itself makes it alone capable of bearing the definite article, "*the* wady to the south of Tekoa." The one objection is that for the first mile of its course it lies east and not south of the ruined village. But the difficulty is not so great as it appears on the map. Not only is the general direction of the wady after its first mile southerly, but even at first its northern side and its head mark the real southern boundary of the Tekoa region. Tekoa belongs to the plateau it dominates on its northern side, and is inseparably connected with the watershed along which runs the old road from it to Umm el-'Amed. To the south of this there is a drop in general level, and anything south of this would seem south of Tekoa.

If the Wady el-Menka' is to be the region of our search, a glance

at the map at once calls our attention to ruins and caves at Kasr Umm Leimûn, between the two heads of the wady (Fig. 6). Encouraged in my suspicions by Père Abel, I went with Messrs. Marcoff and Alexander to visit the site on 13th September, 1928. The site in its close relation to Tekoa admirably corresponds with the preposition ἐπί. There is nothing but the analogy of other lauras to make us seek for the New Laura in the sides of the *wady*, so that the site at the head of, but not in, the *wady*, answers very well to the evidence. And its hill-top position would fit in very well with the fact that the monks seem to have seen St. Saba coming when he was still some distance off; the road along the watershed, as well as the way down from Tekoa, is in full view from Kasr Umm Leimûn.

The actual Kasr Umm Leimûn proved to be a rectangular block of building just north of the top of the hill, lying east and west with two longitudinal dividing walls. The central division has remains of vaulting below the level of the floor of the southern division. On its northern side, fitting in with the level of the vaulting, there appears just above ground towards the west end the lintel of a door piercing the dividing wall into the northern division of the ruin. On its southern face a plain cross was scratched. Perhaps the vault was the undercroft of a church now completely destroyed. The type of church raised on undercrofts is not uncommon in our wilderness; *cf.* Khan el-Ahmar, St. Gerasimus, and St. John Baptist by Jordan.

The bedouin guided us to a smaller ruin, marked R on the map, at the eastern end of the hill. This at once proved to be a small church, with an internal apse to the east, the external wall of the whole forming a simple rectangle. But inside I found that Prothesis and Diakonikon were both present in their regular position, but each only one metre wide, between the central apse and the north and south walls. This small ruin is known as Kasr el-ʿAbd (Fig. 7).

The only further confirmation needed was the discovery of remains of cells, and definite evidence of these is so far lacking. There are no caves in the sides of the wady. There are several caves on the hill-top. Such caves under more or less level ground are more suggestive of cisterns, and these showed no particular signs of having been used as cells. But the cave in which St. Euthymius first lived at Khan el-Ahmar must have been of this type, and the fact that a large one close to Kasr el-ʿAbd is called

Mughairet el-'Abd may suggest its having been used at some period for habitation. But our impression from the *Life of St. Saba* is that the cells were built. If not a mere collection of mud-huts, they were at any rate not likely to be of such enduring masonry as the church, and may well have been completely destroyed.

It remained to confirm by a visit to the spot the position of Susakîm and its use by hermits. This Mr. Marcoff did during the winter. His account well bears out that given in the *Life of St. Cyriac*, of the extreme inaccessibility of the place and the great depth of the *wady*. He writes: "With the help of local bedouin it took me eleven hours to get there from Bethlehem on a mule. . . . There is no decent track, sometimes not a single goat's path . . . As you can see on the map, the Wady Khareitûn just before meeting the Wady Mukta' el-Juss widens and deepens immensely. At the place of junction the sides are almost perpendicular and of tremendous height. The whole thing reminds one of a gigantic cauldron with a few boiling-stones at the bottom. The place is full of caves, and would seem to the hermit a place most conducive to his salvation. On a natural spur midway up the side on the left bank of Wady Mukta' el-Juss just south of the junction, stands a small tower about 3 metres square and 3 metres high. It is built of small rectangular blocks, has a door and two small windows, and remains of a dome on the roof. Its position is an excellent one for a watch-tower, as it commands all the three branches of gorge, and has in view most of the suspicious-looking caves. The caves up the gorge north of the tower (Wady Khareitûn) consist, so far as I was able to make out in half-an-hour's visit, of three small groups, situated in the middle and almost perpendicular part of the sides of the gorge. The bedouin showed me two of the largest, which had undoubtedly been inhabited, though there is nothing remarkable about them. The only thing which strikes one is a number of very small rock-cut cisterns round about the caves. One thing seems quite clear, namely that after the saint's death a large *laura* was founded here. There are so many caves with traces of human habitation, masonry, and rock-cutting, and the situation is ideal for the hermit life. To judge from the tower the *laura* was not a rich one. Probably there was a cave-church, but to find it one would have to spend three or four days exploring all the caves. I had to start back the same evening."

The account of the small size of the cisterns is particularly important, as it bears out a detail of the life : " And since the place had no cistern, he improved (*ἐφιλοκάλησεν*) for himself the hollows (*βοθύνους* : the Metaphrastic version gives *Κοιλώματα*) in the rocks. And the water was collected in the winter and supplied him plentifully for his sustenance and for watering the vegetables all the summer."

It was here that the saint kept a tame lion to keep the wild goats off his vegetables. The lion, who would share the saint's meals, did not share his vegetarian rule. Cyril of Scythopolis relates how on his way back from visiting the saint he came upon the lion lying across his path munching a goat. Seeing that Cyril was somewhat scared, the beast got up and went aside while he passed.

(3.) *Ruins near Mar Saba.*

A. *Vita Sabae*, 16 (description of the first building at Mar Saba) —" And among the first buildings he founded a tower on the hill in the northern commencement of the gorge after the bend, wishing to lay hold on the place as it was impregnable. From this he made a beginning to establish the Laura." (N.B.—In translating this passage I have used a Bodleian MS, *Laud.* 69, which in two variants improves on the published text. (1) *κάμψιν* for *σύλληψιν* is a more natural word, and seems to give better sense, but I need to confirm it by a further visit to the spot. (2) *δράξασθαι* (to lay hold on) gives crisper sense and better grammar than the restoration *θέσθαι* of the published text, which would require an intransitive use of *κτίζει*. *βουλόμενος* for *βουλευσάμενος* is less important).

B. i. *Vita Sabae*, 28.—" When he received men of the world wishing to become monks he would not let them live either at Castellium or in the cells at the Laura, but established a small coenobium to the north (*πρὸς τὸ ἀρκτῶον μέρος*, *Laud.* 69 reads *κατὰ*) of the Laura, and appointing severe and sober men, he would bid postulants abide there until they should have learnt the Psalter and the canon of the psalm-singing, and should have been fully instructed in the strict monastic way."

ii. *Vita Johannis Silentiarii*, 7.—" And when he was performing this service (of steward) it happened that the coenobium to the north outside the Laura was built."

Finding a mention in Phocylides' history of the Laura of St. Saba, of monastic ruins on a high hill-top south of the road from Mar Saba to Jericho, and near the north end of the gorge, I informed Mr. Marcoff, who visited the spot with Mr. Alexander. He reports as follows: " The ruins are in connection with the ' vault ' marked on the Ordnance Map (sheet XVIII, square 114 Q 23). They are on a spur running from north-east to south-west, about 100 metres long and 29 metres wide, with high, very steep sides except on the north-east, and really ' impregnable.' It is near enough to have an absolute command over the entrance to the gorge. The ruins are in a line along the length of the hill. To the north, on the highest point, are foundations of a square tower (10 metres by 9 metres). South of this are foundations of two or three small houses. All these ruins are of very roughly cut stone from the immediate locality. At the southern extremity of the spur is the ' vault ' marked on the Map. It proved to be a cistern, once barrel-vaulted, some 6 metres long from north to south, 4 metres wide, and 3 metres deep. The roof has fallen in, and the cement has been destroyed. But this cistern is built of larger, better-cut stones, not from the immediate locality."

This account of the impregnability of the site, and of its commanding position at the northern commencement of the gorge, with an extensive view over the wilderness, probably points to its identification with the tower rather than with the coenobium; and in that case further search is needed for the latter. It may be noted in passing that when Cyril of Scythopolis gives distances from Mar Saba, they are only accurate if taken from the extremities of the gorge, not from the central point of the Laura. The boundaries of the Laura may be taken to be the tower we have been describing to the north (if our identification is correct), to the south the towers of the brothers John and Arcadius, which face each other across the valley at the great bend below the monastery.

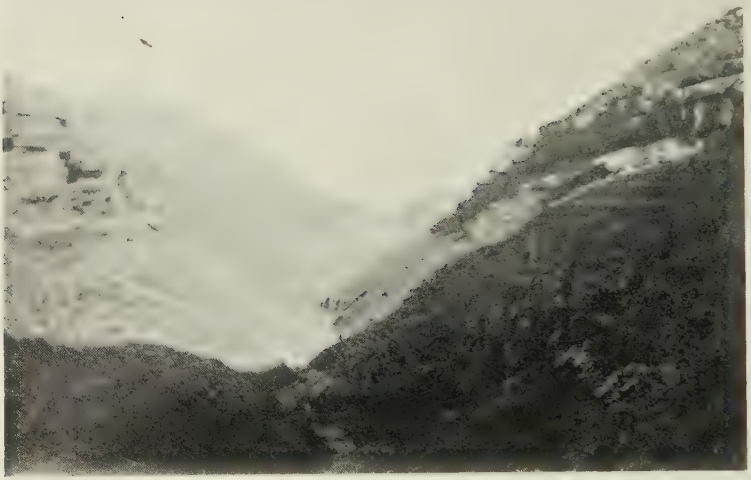
(4) *Miscellaneous.*

In addition to what I have already described, I should place on record a few other pieces of research carried out by Mr. Marcoff,

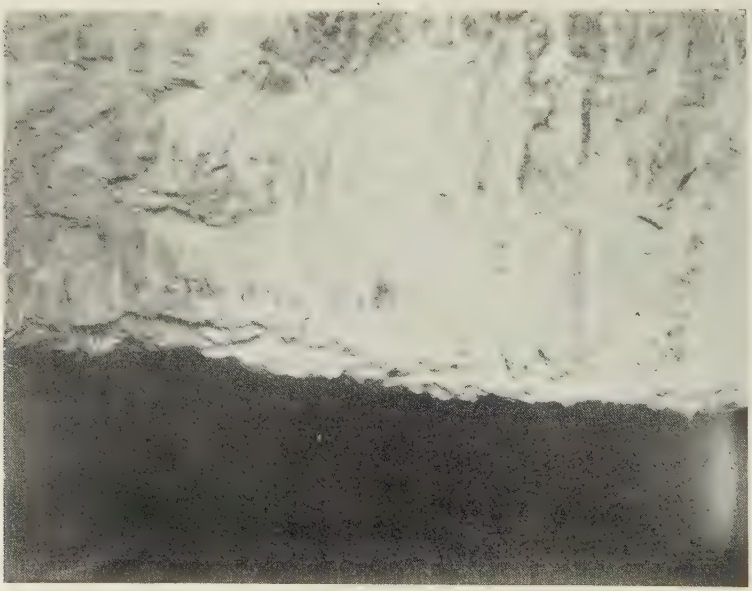
of which we hope later to give a fuller account. These include the discovery and investigation by Mr. Alexander and himself of a small church in connection with some interesting cells, perhaps connected with Deir es-Sidd, on the south side of Wady Suleim close to its junction with Wady Ruabeh (sheet XVII, square 099 Z 24) : the investigation of a cliff-side coenobium, with carved stones and an interesting tomb recently rifled, etc., at Ed-Deir in the Wady el-Ghân below Beni Naim in the Hebron region (sheet XXI, square 100 Z 21)—perhaps the coenobium founded in the region of (*περὶ*) Capar Baricha (Beni Naim) by St. Saba's disciple Severian : and the discovery of an inscribed stone " of Marinus the Deacon " (MAPINOT ΔIAK°) in the monastic ruins at Kuryet Saideh near 'Ain Karim (sheet XVII, square 100 B 31).[1]

[1] Prof. Burkitt points out that the inscription noted above (p 169) is in the Christian-Palestinian Syriac, and, as far as he knows, is the first that has been found, none having been reported from other Christian-Palestinian Syriac districts. The nature of the dialect, which differs from the ordinary classical Edessene Syriac, is shewn in the language (*mara* for *mar'ya*, for *κυρίου* without the article), and in the handwriting, *e.g.*, the undotted *d*, the closed circular *m*, and the large pyramidal *y*.

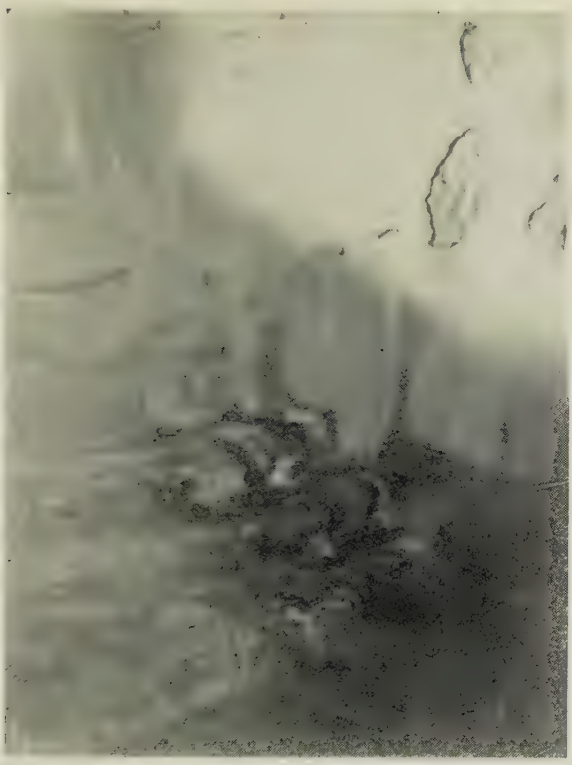
I.—EL ARISAT FROM THE SOUTH SIDE OF THE W. SUWEINÎT, 300 YARDS AWAY (ENLARGED).



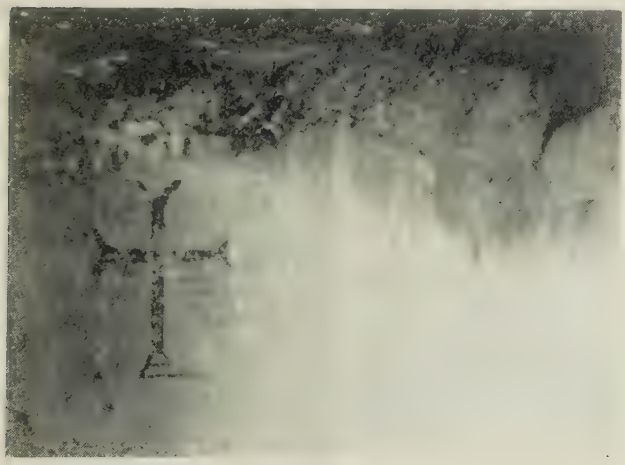
2.—W. Suweinît seen from the West. To the Left is the Cliff of El-'Aleiliyât.



3.—Syriac Inscription on Rim of Entrance to the Baptistery.



4.—Stairs of Baptistery, shewing Syriac Inscription and Two Crosses of older type.



5.—Syriac Inscription on the Wall of the Baptistery.

6.—Kasr Umm Leimun from the North-West.

7.—Kasr el-'Abd from the North-West.

JERASH, 1929.

PROGRESS REPORT. 16TH MARCH TO 4TH APRIL.

By J. W. Crowfoot, C.B.E., M.A. (*Director, British School of Archæology in Jerusalem*).

An advance party, Messrs. Jones and Hamilton, left Jerusalem on the 16th March with the servants to arrange the camp. The rest of the expedition followed on the 18th.

About 30 local workmen were employed on the 19th to lay the Decauville line in the church east of the Fountain Court, where the heaviest part of the season's work will be carried out, and final plans were made for starting the excavation proper here and on two other sites. Work was begun on three sites on the 20th.

The crops in the neighbourhood of Jerash were very poor last year, and there is great scarcity of food; consequently, there is no difficulty in recruiting as much labour as can be profitably employed. The number of workmen has been increased to 150, and this is probably the maximum number we shall employ: there are 5 foremen, 3 of them Circassians and 2 Egyptians, the latter kindly lent by Prof. G. A. Reisner. A shower of rain fell on the night of the 1st April: the weather has been hitherto fine and rather cold, but it is now becoming hotter.

Work has been started in four places altogether:—

(1) *The church east of the Fountain Court opposite St. Theodore's.*

The west front of this church was cleared last season, and in the last fortnight work has been carried on inside the church and in the passage running along the north wall. The west half of the church is now completed, besides the apse and the north end of the north aisle. The superiority of it is most marked, and there can be no doubt that it is the earliest church we have yet found here. Unfortunately, it has suffered a great deal from later occupants: all the pavement has been stripped from the central nave so far as

we have cleared it, and there are a number of secondary walls of relatively poor construction. One wall of this description runs across the whole church from north to south, about half-way from the west end and in front of it three column bases were placed at regular intervals; it is evident that this wall, and the columns, represent an adaptation with some pretensions. Other secondary walls on the contrary are mere patchwork.

The north aisle ended in a rectangular chamber which served presumably as a *prothesis* or a *diaconicon*. The apse has suffered severely and practically all the paving and facing stones here have disappeared.

The north passage was evidently roofed with tiles, and it was nearly twice as wide at the east end as at the west, but the clearance here has not yet been completed. The middle of the church and the south passage are also still unexcavated, and it would be rash to speculate more closely about the date of the whole until the excavation has been completed; at present we have found no evidence which is inconsistent with the identification of our church with the *martyrium* mentioned by Epiphanius.

Two fragmentary inscriptions have been found in the debris removed from the church; the first records a dedication made by an Archibonistes in A.D. 73-4, the second contains the following letters Ν *χρόνων* Μαριανοῦ *ἁγιωτ(άτου)* and may, perhaps, be part of the original dedication of the church.

(2) *The west church.*

This is a church about 100 metres due west of the atrium leading into S. Theodore's church. It is described on old maps of Jerash as a basilica, but it consists really of three churches, a central one with smaller *parecclesia* north and south. The plan of the central church is related to the plan of the cathedral at Bostra. At present, work has been confined to the atrium, the west half of the central church and the east half of the south *parecclesion*. The west portion of the central church, forming about two-thirds of the whole central church, was set out as a square with a large circle inscribed in it, and four small circles at the four corners: there were four lofty columns in the middle, of which two are still standing. The four small circles had been roofed with masonry composed of light porous volcanic rock, and decorated originally with glass

mosaics, but there is not much evidence at present to show how the middle was roofed. There were three doors in the west, and at least two in the north and south walls. The floor was originally covered with brilliant mosaics, but these have been patched a great deal with incongruous materials before the church was deserted. The most interesting of the mosaics still preserved contains the picture of a town with two gates, nine towers and two churches, a river in the foreground and trees behind. The picture measures about three metres square, and is a discovery of obvious importance.

The southern *parecclesion* which has been only partly cleared at present, contained a nave and two aisles : the aisles were separated from the nave by piers of masonry, and ended in narrow rectangular chambers, the nave is an apse with well preserved rows of seats.

As yet we have no inscription giving the date or dedication of the church, but there can be no doubt that it belongs to the first half of the 6th century.

(3) *The south west church.*

This church lies near the west gate of the town, about due south of the church last mentioned. It is a basilica with a nave and two aisles, all three ending in apses at the east. The whole floor of the church west of the chancel which was paved with stone slabs was covered with mosaics. Three mosaic inscriptions, one of them very fragmentary, have been found : all are written in the same epical style as those at S. Theodore's, and they tell us that the church was built by a " Hierophant " (? Bishop) named Anastasius, and dedicated to the μαθηταῖς πρωτοστάταις SS. Peter and Paul : the date, unfortunately, is not given. In the nave there is another mosaic picture in the same style as that in the west church, but much more damaged ; letters which have been preserved show that it represented Pharos, which has wholly disappeared, Alexandria, in which there is a figure of a large domed church, and a place ending in the letters -μφη.

The seats round the central apse are well preserved, and there is a square stone block in front of them with three cavities in it, which we are disposed to regard as a reliquary placed under the altar. Several posts of the chancel screen were found, two of them with a plain stone panel between them still in position.

(4) *The Propylæa Church.*

The church itself has been much denuded, and the atrium west of it, which was originally a forecourt leading to the Propylæa, has been encumbered with heavy debris. It is doubtful whether there is much to be found in either, but there are several points in the planning which may be elucidated by a small excavation, and a few men are now employed here.

April 5th, 1929.

THE IMMOVABLE EAST.

By Philip J. Baldensperger.

Horses.[1]

Horses (*khayl*, خيل) are highly esteemed by the Arabs, and without them the success of the Bedu raids would be greatly diminished. In olden times they commonly used dromedaries for swiftness (Isa. lx, 6), though they introduced horses in later days, probably from Asia Minor. It is at least a coincidence that the word for horse, horseman (*pārāsh*), should so closely resemble the word for Persia, and that in the modern Arabic language both should be confused. The Hebrews used the word *sus*, and through the word *siyāse(t)* (سياسة), and *sais* (*sā'is*), the groom-word *syce* is ultimately derived. That horses were used in the worship of the sun we learn from II Kings xxiii, 11.

Zuwal (زول) means active or brave, and *zuwale(t)* (زوالة), a shadow, is also used for a horseman; we may compare *zule*, "passing away." All these are words denoting rapidity and swiftness, and have therefore a certain appropriateness. Incidentally it may be mentioned that in the district of Nice, where the Arabs were once masters of the coast and hinterland for over two centuries, the name Alzial (الزيال), and Alziary (الزياري), "horseman" and "pilgrim," are very common; a Count Alziary was for many years Mayor of Nice (till 1896).

Though horses originally came from Mesopotamia or Asia Minor, the Pharaohs had introduced them long before into Egypt. But the Israelites had none in their desert expedition, and the law forbade their use, even when they should be established in after

[1] [See *Q.S.*, 1926, p. 97. The reader is reminded that these sketches were written some years before 1914.—*Ed.*]

years in the land (Deut. xvii, 16). Joshua zealously, as we have seen, houghed the horses (Joshua xi, 9) taken in battle. For many centuries they were considered an abomination, and in fact useless to the Israelites, living as they mostly were in the mountainous regions, whilst the Canaanites and Philistines, who mostly occupied the plains north and west, had war-chariots drawn by horses (Judges v, 22; II Sam. i, 6). King David very discreetly began to introduce horses, and reserved only a hundred out of the many he had taken (II Sam. viii, 4).

But Solomon, whose marriage with Pharaoh's daughter brought him into contact with his mighty neighbour and father-in-law, bought forty thousand chariot horses in Egypt, and the price of 150 shekels each which he gave (I Kings iv, 26; x, 29) would be about £16, the price of a full-bred stallion of our days. Moreover, it is probable that these horses were of the lower race, which can be had for £5 to £10 each, and are rarely used by the Bedu. In the following reigns the horses, to judge from the references, were comparatively rare; perhaps they were taken away in war, or they were useless in the hilly regions. Ahab of Israel had horses for his own use, but not for his army, as also had Jehoshaphat (I Kings xxii, 4). Jehoram's horses were reduced to skin and bone (II Kings vii, 13), and the Syrians under Benhadad, when he besieged Samaria with many horses and chariots, knew that the Israelites had almost none; and when they were terrified by a mysterious noise (II Kings vii, 6) they thought that the Kings of the Hittites and of the Egyptians were arriving with their horses.

The Israelites took the horses which remained after the flight, but neither in Samaria nor in Jerusalem could they keep them and teach the people to ride, for in the reign of Hezekiah, the Rab-shakeh, the general of Sennacherib ironically offers the King of Judah two thousand horses, if he could set riders on them (II Kings xviii, 24). The Bedawy never uses a whip or stick to strike or drive his horse, but for the horses which are used in towns men have either a whip or the rope of the halter, which is deemed degrading for a full-blood animal.

We find more references to horses and horsemen during the reigns of the last kings of Judah. They are swifter than eagles (Jer. iv, 13), they came from the north (viii, 16; xlvii, 3), and are continually spoken of as brave (xlvi, 4) and bold (*v.* 9) in war.

Tyre exported horses, which had been brought from the north, Togarmah, Asia Minor (Ezek. xxvii, 14).

The Arabs, as is well known, have the purest breed of Oriental horses, and are justly very proud of their noble animals, which they guard with great jealousy. The often repeated story, in verse and in prose, of the Bedawy who would not part with his steed for all the money in the world, is true to a certain degree, for without his daily companion the Bedawy is helpless, and money would only expose him to the jealousy of others. But with the "best mare" of miles around he is respected and feared by friend and foe. The Arab is often accused of pride and haughtiness regarding his mare, which is true in a way; but if we consider how valuable his mare is to him, carrying him in no time to, or away from, his enemies, she is not only his faithful companion, but is certainly the very source of his wealth, from a Bedu standpoint. Give him a mare and a spear, and he has a livelihood —warring or robbing, defending or pursuing. If she is not altogether the winged steed of the Thousand and One Nights, yet the Bedawy thinks her very little short of that wonderful animal. The way- or warfaring Bedawy can perform wonderful and most audacious feats on horseback; and the same Arab may be quieter than a lamb when on foot.

There are three different kinds of horses, which can be reduced to two only, strictly speaking. There is the full-blood *najīb* (نجيب), or *aṣīl* (اصيل), and the low-blood *kedīsh* (كديش), rarely used by the Bedu. The full-blood are recognized when they have a written genealogy (*ḥeje[t]*, حجة) of many generations, the more the nobler. The sub-class of full-blood, called *musmār* (مسمار), are such as have no genealogical table, and whose famous ancestry is recognized only traditionally. There may be very noble animals among them, but the price is always very low as compared with the exorbitant prices of the upper class. A *musmār* may be had for £30 to £50, whilst an acknowledged *aṣīl*, according to its degree of nobility, can fetch anything from £100 upwards, according to the fancy of its owner.

A mare is also estimated by connoisseurs of the Bedu according to its marks, which can be good or bad. A horse without a white star (*ezbaḥ*) is quite unlucky and must be discarded. Three white feet (*ḥajel*) are looked out for. If the white foot is left it is not very favourable, and if one only of the fore feet be white the animal is best left alone. The mane falling on the right side is

equally a bad sign, and scar-like growths of the hair are explained to be either a dagger given or received by the owner if it is on the neck, while scars on the breast are spear-wounds meant for the owner. A horse that paws the ground is preparing an untimely grave for its owner; and an animal which lies down by night will not carry its rider in the day of trouble, but will stop stock-still when it is most necessary for it to be ready for attack or flight.

As most Bedu sheikhs fall victims, either to their audacity in warfare, by the law of blood-feud, or die in prison, they often confirm the predictions, and an animal with a bad reputation changes master very easily, and at a comparative low price. Sales of mares are never complete, and as a European cannot enter into Bedu details they are rarely owners of real full-blood mares. The seller presents the animal before trustworthy witnesses, and those "trustworthy ones" must be Arabs, in return for a given sum of money, and the mare is given as loan (*kurdat*), and belongs half to the former owner. When young are expected (the sire, of course, must be known and attested by witnesses) the females are given back to the first owner, two or three according to the breed of the mare, or the buyer may give back the mother and free himself at once, keeping only one young animal. These young have the special names of *fawāiṭ* (literally "interest"). Animals sold without these *fawāiṭ* are not considered to be of pure blood.

Again, the country where the purchaser may go to with his animal is strictly limited: thus an 'Adwany living east of the Jordan will sell a mare, which, however, must never be seen north of Nablus, or south of Hebron, or east of Salt, or west of Jerusalem. There may be wider or narrower limits, as he may have enemies who know his animal. Or, if he had taken her in some raid, he guarantees her against falling into the hands of her former owner.

Often it is also stipulated what the mare is to eat, and how she is to be fed—generally it is on barley only. The seller is moreover considered the brother of the vendor, and has a second home at his home. He can borrow the animal when necessary without price (being responsible for accidents and for food as long as she is in his hands). In case of sickness he is to be warned, as a fatal issue must be witnessed if possible by himself. All this and other troublesome stipulations exclude the European from participating in a real full-blood mare, though they may have the very noble names of Kēlān (كحيلان), Ẓaklāwy (صكلاوي), 'Abeyyān (عبيان), Mākhlady

(عبخلدي), and so forth, names derived from the companions of the prophet. They will readily boast when they have a pedigree attested by known sheikhs of 40 or 50 generations, which is certainly a record, even among Bedu.

Fellahîn sometimes buy such valuable animals, but they must be very wealthy. They are often presented to some powerful sheikh by subscription among the villagers, as a respectable sheikh will not degrade himself by riding on a *kedîsh*. In many cases they will content themselves with a *musmār*, even though it is attested by reliable witnesses.

The beautiful animals, always ready for an emergency, may be seen tethered round the camp, and the spear struck in the ground not far off. For as the proverb says :—

A horseman without arms is as a bird without wings.

فارس بلا سلاح . كطير بلا جناح

fāres ballā slāḥ, kaṭīr ballā janāḥ.

So the Bedu is never without arms of some kind, the spear first of all.

The full harness of a horse (*'ede*[*t*], عدة) consists of the big saddle (*marshaḥa*[*t*], مرشحة), covering the horse from the withers to the croup, with very broad iron stirrups, in which the whole foot rests when the man is on horseback, and short straps so that the knee is very far up. The stirrups (*rekabāt*, ركبات) have four very sharp points, which may occasionally be used as spurs (*mehmaz*, مهماز). A girth holds the enormous saddle ; neither breast nor tail straps are used. The halter is generally employed (*rassen*), but the strong bridle (*lijām*) hangs on the high pommel (كربوس), and is only used when in a hurry. An iron peg (*watad*) is attached to the end of the halter-rope, and is stuck into the ground to tether the horse. The saddle-bag (*khurj*) is thrown across the saddle behind the rider, and a nose-bag (*mukhla*[*t*]) is tucked up above the saddle-bag. Iron shackles (*kaid*) which can be shut by a padlock are in readiness, and the fore-feet are fettered when a night is passed in the open or about the tents. Tassels hang about the saddle, saddle-bag, halter and trappings. These not only ornament the horses, but serve to keep away the troublesome flies. Across the belly is a band, equally a protection against the flies, and the neck-chain is terminated by the

crescent, made of the tusks of the boar and fixed together with silver rings. The young of the mares are called *muhr* for the male, and *muhra*[*t*] for the female.

The greatest insult to a Bedawy is to force his horse or mare to plough, hard work being specially reserved for the *kedīsh* or for oxen. Back in the seventies of the XVIIIth century, Hollo Pasha of Nablus went on his tax-collecting tour to the 'Adwan accompanied by fifty Turkish horsemen, and 'Ali Thiab, then sheikh of the 'Adwan, came to meet him with about two hundred Bedu horsemen. After the usual salutations, 'Ali told his men to charge, shoot and perform on horseback in honour of their guest. The Bedu broke into a furious *jerīde*[*t*], galloping and shooting round about the Pasha and his companions, now firing above his head, now frightening the horses by shooting below them, continuing till he entered the camp. And even when the Pasha was seated, the firing continued till the tents were full of smoke. No entreaty of the Pasha was of any avail, the "fantasia," as 'Ali put it, was not enough for so high a personage. Disgusted, Hollo Pasha got up and ordered his men on horseback, and the furious noise continued till he had left the district without even collecting a single piastre. Vengeance, however, was awaiting Thiab. Being invited to Nablus, the sly sheikh came with three hundred Bedu horsemen well-armed, and asked for the *Amāne* (امان), which was sworn to him in the name of France, as was the custom in those days. The Pasha generously accepted, seeing the force against which he could do nothing, and treated them kindly and showed his good will and complete pardon for the recent insult. 'Ali thought that everything was forgotten and peace restored, and he accepted a second invitation, and came this time without defence. When he arrived the Pasha excused himself for not having prepared everything in Nablus for the reception, but assured him that all the villages round had received orders to furnish them fully with whatever they wanted. So by troops of thirty or forty he had them sent to many villages, where they received cordial reception. But when the unsuspicious Arabs were fast asleep, resting after a long day's ride, and in full security about their horses, the regiment of Turkish cavalry which Hollo Pasha had asked from Damascus, and which waited till every one was resting, came in force and captured all the horses to begin with. The men on foot were easily taken and carried to jail at Acca, and the horses sent at once to Damascus, where they were sold as work-horses at *kedīsh* prices. Animals

worth some £300 or more were sold at £5 to £10 each in the Damascus market, and this was the more humiliating to the haughty Arabs who had to endure the mockery (*'iyār*, عيار) of the neighbouring tribes for years afterwards. The imprisoned men were gradually liberated, and two years later 'Ali Thiab, who was allowed to receive his harem in the prison, was also released. When he came back he was morally crushed, and for many years financially ruined. He never lived to see his tribe as high-spirited and powerful again as they had been before this unfortunate adventure.

Many years have passed, and in spite of a certain government control, fortified since 1892 by the occupation of Kerak by a Turkish garrison, they have continued in a semi-independent state, just as other tribes, even as late as 1884, have only submitted to pay their taxes after small expeditions have been sent against them. To-day, as of old, there have been tribes who have refused to settle down, and what the Rechabites said to Jeremiah (xxxv, 8–10) is unchanged to this day: "We have obeyed the voice of Jonadab the son of Rechab our father . . . . to drink no wine all our days, . . . nor to build houses, ... neither have we vineyard, nor field, nor seed: but we have dwelt in tents and have obeyed, . . . our father."

TRANSLITERATION OF HEBREW AND ARABIC CONSONANTS.

HEBREW.

Hebrew.	English.	Hebrew.	English.
א	’	כ ך	kh
ב	b	ל	l
ב	bh	מ ם	m
ג	g	נ ן	n
ג	gh	ס	s
ד	d	ע	‘
ד	dh	פ ף	p
ה	h	פ ף	f
ו	v, w	צ ץ	z
ז	z	ק	k
ח	h	ר	r
ט	t	ש	sh
י	y	ש	s
כ	k	ת	t
		ת	th

ARABIC.

Arabic.	English.		Arabic.	English.
ا	’		ض	d
ب	b		ط	t
ت	t		ظ	tz
ث	th		ع	‘
ج	g	or j in Syrian Arabic.	غ	gh
ح	h		ف	f
خ	kh		ق	k
د	d		ك	k
ذ	dh		ل	l
ر	r		م	m
ز	z		ن	n
س	s		ه	h
ش	sh		و	w
ص	z		ي	y

Long vowels marked thus:—ā, ē, ī, ō, ū.

THE

PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

In view of the somewhat unsettled state of Palestine, it has been decided by the Executive Committee not to proceed with the work at Ophel this autumn, but it is hoped it may be possible to do so next spring when the winter's rains are over. Whether it is possible to carry out this plan must depend on further financial support, as there is very little in hand for the purpose. The Committee appeal to all those who are interested in exploration in Palestine to rally to their support. If we can get the funds, we shall certainly continue the important work at this the oldest site in Jerusalem.

The unfortunate disturbances which have recently occurred in the Holy Land must be regretted by all those who have the interests of the land at heart. They cannot but have given a set back to the peaceful development of the country. It is not the business of the *Quarterly Statement* to deal with a subject like this which must necessarily involve questions of a religious and political nature which are not the concern of the P.E.F. We cannot, however, fail to express our sorrow and our regret at the tragic loss of life and property, and to refer in particular to the death of Mr. Harold Wiener. We are glad to print a paragraph on the subject from Mr. J. W. Crowfoot.

Harold Wiener.

The senseless murder of Harold Wiener has robbed archæological circles in Jerusalem and the British School in particular of a good and generous friend, and it is one of the cruellest ironies that he of all men should have been one of the first victims of Arab hooliganism.

Harold Wiener attracted me as a man with a mission. A solitary, yet at heart a most kindly and sociable creature. He had had the

usual English public school and University education, going from St. Paul's to Cambridge before he was called to the Bar, but from his childhood, as he put it, he had dedicated himself to the service of his co-religionists, although quarrelling continually with other Jews "as good Jews should." Most of us put away childish resolutions quickly enough. Wiener did not; first and last he remained the good Jew, convinced that the world is governed by the God of Israel, and it was as a good Jew that he came to Palestine to take up agricultural land and later, when his land schemes fell through, settled down with equal fervour to the historical work for which his name is known, and with equal confidence that his conservative views, however unpopular now, must ultimately prevail. His attitude towards archæology was one of amused and benevolent detachment; archæological researches did not seem to offer the certainties which his legal mind demanded, and consequently he could not afford to spend much time on them, although it was his chief, perhaps his only, relaxation to take archæologists on long expeditions about the country from one site to another, though he was too good a Jew to eat with one even on a picnic! Latterly he had come to believe that the God of Islam was not far from the God of Israel, and that the future of the Jews in Palestine depended wholly on their establishing better relations with the Arabs. It was to the cultivation of such relations that he devoted himself more and more with the generosity and the pertinacity which were equally natural to him, and when he moved into a new house a few months ago his friends received a notification that his address henceforth was "Humanity house"—a name, he said the last time I saw him, "which I need hardly tell you was suggested to me by one of my *Arab* friends."

J. W. C.

Mr. Alan Rowe, whose successful excavations at Beth-shan mark a new epoch in Palestinian archæology, will conduct excavations at Medum, and thus resume the earliest work of the Museum of Philadelphia in the field of Egyptian research. Though we naturally regret that the work at Beth-shan has come to an end, we cordially wish the Philadelphian expedition and Mr. Rowe success in their new undertaking, and once more express our appreciation of the splendid way in which the Museum of the University

of Pennsylvania has in the past made the results of its excavations so freely and so widely accessible. This alone, quite apart from the many important discoveries that were made at Beth-shan, has done much to awaken and deepen popular interest in ancient Palestine.

Mr. Chitty writes that, in the enlarged view of el-Aleiliyat, *Q.S.* July, Plate 1, facing p. 178 (see description, p. 168 n1), the arrows are not quite accurately placed. Mr. Marcoff is to be seen upright against the cliff face at a spot 9 mm. below and 13 mm. to the left of the white spot (a spot in the negative) at which the arrows now point.

It may be added that in the April *Q.S.* p. 93, and plate VII., the view is looking south-*east*, not south-*west*.

Further details of the excavation of Tell en-Nasbeh by the Pacific School of Religion, under Prof. Badé, supplementing the account summarised in the *Q.S.* of January, p. 56 sq., are given by a Jerusalem correspondent of the *Manchester Guardian*. Some interesting tombs were discovered. Tomb No. 3 contained pottery, beads and jewellery from the second phase of the Iron Age in Palestine, about 600 B.C. During the Hellenistic period (about 250 B.C.) there was a second burial, when the earlier occupants were removed but the other contents were left. To this date belong a new group of jars, strongly influenced by Greek forms of pottery, including the labastron. "The second tomb is of special interest to Biblical students because a coin found in it dates it in the reign of Archelaus, son of Herod the Great, who ruled from B.C. 4 to A.D. 6." He is the Archelaus mentioned in Matt. ii. Another tomb belongs to the Early Iron Age, 1200 to 800 B.C., and contained a rich assortment of pottery. Besides numerous lamps, there were many small black jugs, with loop handles, in which had been deposited oil or some other substance deemed important to the dead. One unique jug is in the form of a beehive, with a spirally incised short neck and mouth, which simulates the doorway for the bees. Another piece, of Cypriote origin or influence, suggests a swan, the long neck being surmounted by a small mouth with pinched lips, and the top of the jar painted so as to suggest the outlines of wings.

This is the largest tomb group found at Tell en-Nasbeh, and two fine Egyptian scarabs may, on more careful study, provide a definite date for it.

At the Fifth International Congress of the History of Religions, held at Lund, August 27-29, the P.E.F., invited to send a delegate, was represented by the Editor. Palestinian archæology found a place in an illustrated lecture by Prof. Schütz, of Kiel, on Jewish ossuaries; and various other branches of Semitic archæology were handled in illustrated lectures, on the old religious art of South Arabia (Prof. Grohmann, of Prague), the Arabian Origin of the Jewish nation and religion (Dr. Nielsen); the pantheon of Palmyra (Dr. Ingholt), and disputed points in Babylonian sacred architecture (Dr. Ravn, like the two preceding, of Copenhagen). Prof. Selim Hassan, of Cairo, spoke on remains of ancient Egyptian religion in modern Egypt, and Sir Thomas Arnold (London) illustrated the treatment of Jesus and Mary in Muslim religious art. The papers ranged over a wide area—Oriental, Classical, Scandinavian, and primitive religions—and many of them (including one by the Editor) dealt with ideas of the soul, one of the main topics selectesd for special discussion. The Congress was in every way a great success, thanks to the keen and active interest taken in it by the Honorary President, the Crown Prince of Sweden, to the hospitality shown by the second oldest university of Sweden, and in particular to the courtesy of its Rector, Prof. Moberg, a well-known Orientalist deeply interested in all Palestinian research. To the great regret of all, Archbishop Söderblom, Vice-Chancellor of Upsala, whose name is familiar to many for his labours on behalf of concord and amity among all Christian peoples, was unable to preside, owing to ill-health. Since the last meeting (Leyden, 1912), the executive "International Committee "of the Congress of the History of Religions has suffered very severe losses, and Sir Thomas Arnold and the Editor were appointed British representatives in the place of Prof. Percy Gardiner (resigned) and the late Prof. Estlin Carpenter.

The committee are glad to report that the fifth Annual, that for 1927, has now been published and is on sale. It contains Mr. Crowfoot's report of his work at Ophel and the Tyropoeon Valley

during the excavating season of 1927. He was assisted by Mr. G. M. FitzGerald, Assistant-Director of the British School of Archæology, who has written the second part of the book dealing with the pottery and smaller finds, while Mr. Crowfoot describes the buildings and levels, analysing the stratification of the site from the earliest times to the Arab Conquest and the Crusading period. The volume contains as frontispiece the Old Gate from the north-west, 22 other plates, and 21 illustrations, there are 131 pages of letterpress and an index.

By an arrangement with Sir Flinders Petrie, Members of the P.E.F. are enabled to purchase at half the published price the Reports of the British School of Archæology in Egypt dealing with the Society's researches in Palestine. Reciprocally, the excavation Reports of the P.E.F. henceforth issued are available to Members of the School in Egypt similarly at half-price. P.E.F. Members desirous of taking advantage of this privilege should apply to the Secretary, 2, Hinde Street, W.1.

Miss A. H. Finn has kindly presened 500 copies of *Palestine Peasantry: Notes on their Clans, Warfare, Religion and Laws*, being a reprint of the work of her mother, the late Mrs. E. A. Finn who, with Consul Finn lived in Palestine for over seventeen years and devoted much time to a study of the social divisions and conditions of the inhabitants some fifty or more years ago, and argues that the modern Arab Fellahin are descendants of the ancient Canaanites. This interesting little book of 95 pages is on sale at 7d. per copy, post free.

Subscribers in the United States are asked kindly to note that subscriptions should be forwarded to the Hon. General Secretary, Prof. M. W. Randall of 55, Elizabeth Street, Hartford, Conn., U.S.A.

Antiques for Sale.—A small collection of antiquities from the excavations at Ophel is on view at the Museum of the Fund, 2, Hinde Street, Manchester Square, W.1, and a number of duplicates, including pottery lamps, stamped Rhodian jar-handles, etc., are on sale.

The Committee are glad to report that the *Annual*, 1927, on the Ophel Excavations has been published and is on sale, 4 to 135, pp,, 22 plates and 21 text illustrations. Price 31*s*. 6*d*. to non-members. Free to all full members.

Mr. H. C. Luke's translation and annotation of a 16th century MS., under the title of *A Spanish Franciscan's Narrative of a Journey to the Holy Land*, is on sale at 4*s*. bound in cloth, and 2*d*. 6*d*. in paper covers.

The new plan of Jerusalem on a scale of approximately 1 : 5000, or about 12 inches to a mile, recently published by the Pro-Jerusalem Society, is now on sale at the P.E.F. office. Unmounted it measures 39 × 34 inches, and the price is 5*s*. ; mounted on cotton and folded to size 8 × 6 inches, price 9*s*. The latter form is the more convenient, as owing to its size the unmounted sheet cannot be sent through the post without a fold.

The library of the Palestine Exploration Fund contains many duplicate volumes. They may be had separately, and a list, with the price of each volume, has been prepared, and can be obtained on application.

The list of books received will be found below.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but they are preserved in the office of the Fund, where they may be seen by subscribers.

The Committee gratefully acknowledge the following special contributions from :—

	£	s.	d.
George Mathieson, Esq.	20	0	0
Richard Cadbury, Esq.	10	0	0

The *Annual Report*, with Accounts and List of Subscriptions for 1928 was issued to Members of the P.E.F. with the April number.

A complete set of the *Quarterly Statements*, 1869-1910, containing some of the early letters (now scarce), with an Index, 1869-1910, bound

in the Palestine Exploration Fund cases, can be had. Price on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth is £12 12s. A catalogue describing the contents of each volume can be had on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The Museum at the Office of the Fund, 2, Hinde Street, Manchester Square, W.1, is open to visitors every week-day from 10 o'clock till 5 except Saturdays, when it is closed at 1 p.m.

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from Prof. Randall, Honorary General Secretary to the Fund, Hartford College, Conn., U.S.A.

The Committee have to acknowledge with thanks the following:—

The Hittite Empire, being a survey of the history, geography and monuments of Hittite Asia Minor and Syria. By John Garstang, M.A., B.Litt., D.Sc. (Constable, London.)

The Antiquaries Journal.

The Expository Times.

The Near East and India.

Palestine and Near East Annual. Vol. i., No. 2. The Appeal of Palestine to the Christian World, by the Right Rev. Rennie MacInnes; The Church of the Holy Sepulchre, by Canon Hanauer, notes on the temple area, by the same; the hospital of St. John, Jerusalem, by Lieut.-Col. Perowne; the six Canaanite temples of Beth-Shan, by Alan Rowe; the British School of Archaeology in Jerusalem; Jerusalem water-supply; Trans-Jordan, by A. Forder; Damascus, by Rev. Elias Newmann, &c., &c.

New Judæa.

Bulletin of the Metropolitan Museum of Art, 7, 8.

Journal of the American Oriental Society, June. Did the early Semites of Asia Minor use the alphabet? by F. J. Stephens; the co-ordinate adverbial clause in Hebrew, by T. J. Meek; a Hebraeo-Sufic poem, by H. Hirschfeld; the Upanishads, what do they seek and why? by F. Edgerton.

American Geographical Review, July. Ancient Mediterranean pleasure gardens, by Ellen C. Semple.

Homiletic Review.

The American Journal of Philology, April-June. St. Augustine's, "City of God": its Plan and Development, by Roy Deferrari and M. J. Keeler.

Jewish Quarterly Review, July. The Slavonic Josephus and its relation to Josippon, &c., by S. Zeitlin.

Bulletin of the Metropolitan Museum of Art, June, July.

An Arab-Syrian Gentleman and Warrior in the Period of the Crusades: Memoirs of Usamah ibn-Munqidh, translated by Philip K. Hitti (New York, Columbia Univ. Press.)

The Museum Journal, June. Final Report on the Excavations at Beisan, by Alan Rowe. A new expedition to Egypt.

Revue Asiatique, Jan.-March.

Revue Biblique, July. A Magdalenian station in the Negeb., by D. Buzy; itineraries in the Holy Land preserved in the Amiens Library, by A. Barrois; a journey in Samson's land, by R. Tonneau.

Sphinx, Revue Critique, xxii., 1. Description and study of some monuments in the "Victoria Museum for Egyptian antiquities" at Upsala.

Archiv. fur Orientforschung, v., 4. The Age of the tombs of Ur, by V. Christian and E. F. Weidner; a neglected Hebrew inscription of the XIIIth cent. B.C., by W. F. Albright; "Pharaoh will lift up thy head," by the late Hugo Winckler; traces of the oldest cultures of Babylonia and Assyria, by E. A. Speiser; Reviews (including Mr. Luke's *A Spanish Franciscan's narrative of a journey to the Holy Land*, by G. Dalman); reports on recent excavations, bibliographies, &c.

Mitteilungen des Deutschen Archaologischen Instituto: Athenische Abteilung, liii., 1928. Der Maskengott, by Wrede; die darstellungen der prothesis in der griech. kunst, by Zschietzschmann; Zeilenfolge der vorgriech. Inschriften v. Lemnos, by Hammarström, zum Weihrelief v. Mondragone, by Buschor, &c., &c.

Zeitschrift f. d. atlttest. Wissenschaft, 1929, 3. Mizpah, by H. W Hertzberg; on the biblical chronology of the pre-Abrahamic period, by F. Bork; two new Philistine names,? by A. Alt; on the chronology of the Priestly Code, by A. Jepsen.

Zeitschrift des Deutschen Palastina-Vereins, lii., 2. Borsama, by A. Alt; La'ash and Hazrak, by M. Noth; Jerusalem on the Mosaic map of Medaba, by P. Thomsen; (concluded in No. 3); the Church of the Sepulchre in Jerusalem, by G. Dalman, &c. No. 3, report of a journey in Palestine, by P. Range; the Assyrian provincial system in Palestine, by A. Alt; archaeological report, by K. Galling.

Orientalistische Literaturzeitung, July. The alphabet that lies behind the LXX., by A. Sperber. (Numerous reviews.)

Archiv Orientalni: Journal of the Czechoslovak Oriental Institute, Prague ed. by B. Hrozny, 2. The lands of Hurri and Mitanni and the

earliest Indians, by the Editor; the history of Early Islamic art, by A. Grohmann.

Ebert, Reallexikon der Vorgeschichte. Articles on cyclopean buildings, bricks, sceptre, Tyre (illustrated), &c., by Peter Thomsen.

Biblica : commentarii editi quater in anno a Pontificio Instituto Biblico, x., 3. The biblical chronology of the VIII. cent. B.C., by Hänsler; the house of Caiphas and the church of St. Peter, criticism of an erroneous interpretation of the texts, by E. Power; the chronology of the age of Hammurabi, by Schaumberger; the Manichaean doctrine and the origin of Christianity, by G. Messina; the Danish excavations at Shiloh, by A. Mallon.

Clara Rhodos : Studi e materiali pubblicati a cura dell' Istituto storico-archeologico di Rodi. Vol. I., rapporto generale sul servizio archeologico a Rodi e nelle isole dipendenti dall' anno 1912 *all' anno* 1927. By A. Maiuri and G. Jacopich, Rome, 1928.

Bible Lands, July. Capernaum.

Journal of the Palestine Oriental Society. ix., 2. Water and the "water of life," by T. Canaan; traces of the feudal system in Palestine, by Omar es-Saleh el-Barguthy; Bashan in the second mill. B.C., by B. Maisler; animals in Palestinian superstition, by St. Stephan.

Zion. (A Hebrew journal devoted to history and ethnography) No. 3.

La Revue de l'Académie Arabe, Damascus, May-June. Le lien intellectuel entre Damas et Djebel 'Amel, by S. Daher; les mots introuvables dans les dictionnaires arabes, by F. Krinkow, I. I. Ma'louf.

Al-Mashrik, Aug.-Sept. La famille libanaise, by S. Dahdah; le convent de N. D. de Tamish, by A. Chibli; le tombeau de Rachel, by A-M. Zahr; droit Maronite et droit Roman, by L. Rhazen; notes de linguistique arabe, by P. Boustany; la vie érémitique au Liban, by P. Ghaleb, &c., &c.

From Mr. Pilcher: *Journal of the Royal Asiatic Society.*

The Committee will be grateful to any subscribers who may be disposed to present to the Fund any of the following books :—

The Memoirs of the Survey of Western Palestine.

The Quarterly Statement, from 1869 up to date.

Duc de Luynes, *Voyage à la Mer Morte* (1864); published about 1874.

K. von Raumer, *Der Zug der Israeliten.* (Leipzig, 1837).

Lagarde, *Onomastica Sacra* (1887).

New Edition of the Babylonian Talmud, English Translation. Original text edited, formulated, and punctuated by Michael L. Rodkinson, Revised and corrected by the Rev. Dr. Isaac M. Wise. Published by the New Amsterdam Book Company, New York. Vol. i, *Sabbath* already in the Library; subsequent volumes wanted.

Whilst desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they do not necessarily sanction or adopt them.

Form of Bequest to the Palestine Exploration Fund.

I give to the Palestine Exploration Fund, London, the sum of———— to be applied towards the General Work of the Fund; and I direct that the said sum be paid, free of legacy Duty, and that the Receipt of the Treasurer of the Palestine Exploration Fund shall be a sufficient discharge for the same.

Note.—*Three Witnesses are necessary to a Will by the Law of the United States of America, and Two by the Law of the United Kingdom.*

BETH-SHEMESH
PLAN OF EXCAVATIONS UP TO JULY 27:1932
ARABIC & BYZANTINE WALLS SHOWN HATCHED
EARLIER WALLS SHOWN BLACK
SCALE 50 0 50 100 FEET
SCALE 10 0 10 20 30 METRES
ROMAN ROAD
NORTH EAST GATE
CENTRAL CITY AREA
HAVERFORD EXCAVATIONS
Area 1928
do July-Aug., 1929
do Proposed Balance, 1929

THE HAVERFORD COLLEGE EXCAVATIONS AT ANCIENT BETH SHEMESH, 1928.

By Prof. Elihu Grant.

The Haverford Archæological Expedition was granted permission by the Palestine Government, Department of Antiquities, in 1928, to excavate at the site of the ancient Beth Shemesh. This was a Canaanite city, half-way between Jerusalem and the Mediterranean. It occupied one of those farthest westward foothills of the Shephelah, or lowland, overlooking the Plain of Philistia. Sir George Adam Smith, in his interesting *Historical Geography of the Holy Land*, describes the region in Chapter X of that work. Beth Shemesh itself figures in the first book of Samuel, the sixth chapter, and elsewhere in the Bible; and the region of which it is a natural centre includes the reputed birthplace of that boisterous play-boy of the early tales of Israel, Samson.

West from Beth Shemesh one looks out to the Mediterranean across the marts of Ashdod, Ekron and Gath. The town was thoroughly Egyptianized in the second millennium B.C. and in easy receipt of imports from the islands of the sea, particularly those of Cyprus. This same second millenium was for Canaanites the age of Middle and Late Bronze culture, and most of our results, as will be seen, are due to the versatility and artistic grace of this folk and time.

The hill of old Beth Shemesh is now called Rumeileh and is across a country road from a more recently ruined settlement known as Ain Shems. Between the two sites is the shrine of Abu Meizar, on the road which runs south to Hebron.

In our work of 1928 on the ruin-heap of Beth Shemesh we disturbed less than a tenth of the ancient settlement, and in our portion found no reason for supposing that the city was inhabited later than the visit by Sennacherib, the Assyrian conqueror (about

701 B.C.). On the eastern edge where the Palestine Exploration Fund worked more than fifteen years ago, Dr. Duncan Mackenzie found a Byzantine convent.[1] One wonders whether the present name by which the hill is known to the natives, "Rumeileh," may be a reminiscence of the Greek Christian occupation.

We used for headquarters the country mosque known as Weli Abu Meizar. This mosque is surrounded by signs of its earlier Christian use. Flanking the mosque door on either side in the yard are portions of column tops with Christian carving. The hollow ground around the mosque, the stone press-bed in a cave just outside the gate, here a bit and there another, tell of former sanctuaries[2].

The ruined village of Ain Shems, east of the mosque, may have been built of the stones from the ruins of Beth Shemesh.

Actual digging was begun on the hill on the 12th day of March. On June 1st we gave up our working headquarters at the Weli Abu Meizar, at the foot of the hill. Our expert group of five Egyptian workers was augmented by unskilled help from the villages, chiefly from Deir Aban. These peasant workers numbered at different times between twenty and seventy, men and women. By their efforts we began to excavate near the extreme western angle of the hill and did a piece of clearance outside the line of what proved to be the ancient city wall, for a distance of somewhat more than fifty metres southward and northward of our initial trench against the outer face of the wall as we were able to determine it. This preliminary work was for the purpose of providing dumping room for the rubbish from within the city, but in a short time we came upon suburbs of a Hebrew period and cemeteries of still earlier times. The suburbs mentioned extended the whole width of the extra mural spaces opened where the debris may have had an average depth of 4 to 4½ metres. The cemeteries were near the southern extremity of the dig and gave evidence of an abundantly rich civilization which probably continued for about 800 years of the second millenium (2000-1200 B.C.).

Our work within the city uncovered three major levels of habita-

[1] See *Annuals* of the Palestine Exploration Fund, London, for the year 1911 and the double number for 1912-1913.

[2] See *Annual* for 1911, p. 49, Fig. 7 (the Weli of Abu Meizar) and Dr. Duncan Mackenzie's account, p. 48.

tion between the surface and the rock. Certain of these levels would sub-divide into periods, but for the sake of simplicity they may now be described as Hebrew, Philistine and Canaanite. We may designate Hebrew and Philistine as of the Iron Age and the Canaanite as of the Bronze Age, but one of the interesting suggestions of the campaign was the easy and gradual transition from Bronze Age Ceramic to the fabric, styles and designs of the pottery of the Iron Age. Our small experience to date at Beth Shemesh indicates that the Philistines did not introduce the city to the characteristic interests and activities of the so-called Iron Age, but that these changes were mediated by their predecessors, probably the Canaanites themselves who had a wide open consciousness of the Mediterranean world and who by importation at least knew excellent models of the changing fashion in the potter's art.

The first item in the official register of the expedition was an inscribed jar-handle which the Director picked up on the surface of the hill at the eastern side within an hour after starting his Egyptians on the trial trench at the western extremity. Two lines are fairly plain in the older Hebrew, or Canaanite, script sometimes called Phœnician.

Nothing more important than a thin and drying wheat crop impeded work in our sector, and we were soon upon the wreckage of a city of about the 8th century B.C.

The extra-mural debris is, of course, no criterion in stratification study, since the possibilities of order and disorder are varied. But certain of its vagaries may be made very useful. We were enlightened frequently by comparison of the orderly intra-mural layers of remains with odd items from without the walls. But the most fruitful comparisons were those between the fine array of vessels from the three cemeteries and their broken analogues found in appropriate strata within the town.

The cemetery system of Bronze Age burials in our sector at Beth Shemesh was first entered on March 20, and continued to engage us until near the end of our spring work. After clearing the debris outside the wall, including house remains of the suburbs, we came upon a straight shaft, filled to its top, which we proceeded to empty to a depth of more than two metres, when we came on our first grave. We found skeletal remains of two people, both facing south, but headed in opposite directions, and supplied with an outfit of bowls,

lamps and jars, several of which were whole, or nearly whole. The dead were laid upon their side in a cramped position, the entire deposit occupying about a square metre. We designated this discovery as T.1., and saved its examination for the best combination of light, and for a time when our work would be least observed by the fellahin as we sketched, photographed, measured and, finally, cleared the burial. Before we had gone many days in this study we came upon two connected openings of another burial cave much nearer to the Great Wall. Scant remains of a warrior were discovered, with his bronze spear head, also of other burials and their accompanying treasures of beads and jewellery. It was at once observed that the style of vessels in this, which we called T.2, was somewhat different from the pottery found in T.1. When we had worked more thoroughly the northern of the two mouths of T.2, and excavated in heavy deposits of marl which had fallen from the cave sides and roof, we came upon a cluster of vessels, including three fine " bilbils." We named the northern of these two openings T.2.A, and the other T.2.B, and had occasion, as the system continued to extend, to add other letters and specifications for the different parts of the cemetery. Scarabs began to appear and more beads. In T.2.D we were able to identify a considerable part of the frame of a child which had been laid upon its back.

Before long we had an opportunity to deepen T.1, and at successive depths in the shaft came upon earlier burials, of which the bones were seldom as orderly even as in the top burial. The pottery increased in quantity and variety, and seemed well-nigh inexhaustible. Toward the end of our campaign, workers from T.1 and T.2 systems were approaching each other through a connecting tunnel which they made in the fillings of earth and marl, and came, every now and then, upon other clusters of burial remains. The walls of all these caves were very soft, and sometimes treacherous. Evidence of ancient defence against collapse was found in little shoring walls and piles, and sometimes we had to take extra precautions against injury to our workpeople. It was not always possible to determine what had been the shape of certain of these holes at the time when the graves were made, for the contour of the sides of the caves is ever subject to change. Much destruction of vessels has resulted from fallen rock, but, on the other hand, many fine samples were preserved, doubtless by the fortuitous embedding, as in cement. With knife

and brush we cleared each cluster for observation, and then removed the objects to prepare for a further descent, and the recovery of presumably older burials. Each superimposed burial usually wrought a certain amount of havoc with the deposit already there. Bones and jars were brushed to one side, and the new funeral bed prepared. The official registration with the dates will indicate the successive recoveries of this considerable ceramic material. It would seem as if the precious metals were commonly taken from the cemeteries long ago, and but few pieces were found along with a number of vessels and ornaments of alabaster and bronze.

What was perhaps the greatest of our surprises in the findings of the three burial systems was the discovery of T.3. It was soon apparent that this, the smallest of the three cemeteries, and the nearest to the city, was the oldest of the three. We came upon it suddenly, when we penetrated the flooring of the finest house in the extreme south corner of our work within the city. We lifted some covering stones leading into a slanting cave which carried us well under the great wall of the city against which this house was built. This cave was not filled with debris, as were the others, and the rows of clay jars standing against a ledge were plainly visible from the opening which we made. Beyond them, as if swept into a pile, were the much decayed bones and, gleaming among them, several badly corroded bronze needles. This collection may have been a private cemetery of a noble family. It proved comparatively easy to measure, sketch, and photograph, and simpler in its nature than the other cave deposits. There was no risk of falling sides or top, and its contents were immediately available.

It is possible that further excavation in the region of the three systems of burials may reveal more extensive cemeteries and we hope to reopen the edges of our dig for further indications, but we can hardly expect any more revelatory types of burial unless we are favoured with an Early Bronze Age tomb, since these three systems are pretty representative of the pottery types of the two later Bronze Ages and the transition approaching earlier Iron.

Among the notable discoveries was a succession of sanctuaries within the city a little northward of our point of entrance. Between the two earlier levels we came upon a region somewhat clearer of dwellings and found a collection of what may be sacred pillar stones. One of these can hardly be mistaken, $1\frac{1}{2}$ metres in length and in cir-

cumference, tapering at both ends, shaped somewhat like a cigar, chip-dressed from hard limestone, and the socket-stone accommodating one of the ends not far away. Besides these possible baetyls we found a circular slab grooved and pitted for the sacrifice of animal offerings.

It would seem as if this were surely one of the earliest and latest localities for worship at Beth Shemesh since, a little north of the stones mentioned, we began to uncover a great building. Our work was interrupted by the coming on of harvest after we had disclosed the western and southern end of a temple structure of large polygonal stones. There were two rows of column bases running in an east-west direction on a high level, and on a lower level a similar row of column bases of another sanctuary of the late Canaanite or earlier Iron Age. This great building may have been oriented differently at different times but so far as we have gone it appears to have opened to the west with a fronting wall of over 13 metres length and a south wall over 17 metres in length. The width of these walls was generally $1\frac{1}{2}$ metres. Most of our work in this building has been refilled in order to preserve its main features for subsequent examination. In the upper strata of the enclosure we found a small clay Astarte head and the fragments of what now appears to have been a clay stand for holding an incense burner. There were found in the debris of the city fragments of three other clay figurines and one whole specimen of an Astarte plaque.

The wall system for the defence of the city which Dr. Mackenzie and Mr. Newton have indicated as surrounding the Tell was picked up for the entire front of our sector. It proves, in this region, to be a double wall including a peculiarly complicated offset which led us at times to suspect a third stage of wall, or repair. The oldest and best of this wall was laid on the bed rock in the middle Bronze Age. The stones are huge polygonal blocks, many of them approximating a metre.

Wherever this wall remains, usually at a width of 2 metres, it impresses one with its similarity to other Palestinian walls of the same general age, as at Jericho and at Tell en-Nasbeh and elsewhere. It lacked the magnificent proportions of Tell en-Nasbeh and it was reinforced in the late Bronze Age and probably by the Philistines with a weaker wall and patched by defences sometimes laid on top of the wall and sometimes on earth. The remains of its top are

still found for a depth, and a distance outward, of two metres in the extra mural debris.

Outside the Great Wall are found two of the Bronze Age cemetries, while the oldest and smallest of the cemetries is immediately under the wall at the southern corner of our excavation. This has a bearing on the dates of wall building at Beth Shemesh. Surely no one would have undermined a defensive city wall with a cemetery, nor would a city wall have been built over such a weak spot had its existence been guessed at the time. Many years must have elapsed between the time when the early burial cave was first sealed and the Great Wall made to cover that spot.

In the floor of Room IV4 was a cave entrance leading beneath the city and the wall and easily connecting eventually with the cave which we designated at T.2.A. It was quite empty and presumably might have been known to the occupants of the house above it. No evidence of use remained nor can it be determined now whether its ultimate connection with T.2.A. and the burial contents was anciently known or has resulted from a collapse of the cave walls in more recent times.

It is presumptuous to attempt to write the history of Beth Shemesh from one corner excavated, but one can draw certain conclusions from the relics there. The finest buildings found were those whose remains we ascribe to the Canaanites and which they founded on the native rock. The Canaanites were a versatile and somewhat artistic people and nothing that we found of later date compared with their culture. When we had reached their level we could more easily imagine how it felt to be a Canaanite living on the rock level behind his ramparts. They were in easy relation with Egypt and they imported wares from the islands of the Mediterranean. These they imitated in the local clays and could sell their own products more cheaply. Their men followed the Egyptain custom of wearing a signet, the bezel of which contained an Egyptian scarab seal, these sometimes brought from Egypt. Steatite was the commonest substance used for these seals, though serpentine, paste, crystal, amethyst, and carnelian were also employed. One of the carnelian is inscribed with three Egyptian deities, and other scarabs as well as amulets in Egyptian style show the veneration in which the gods of the south country were held. But the population really set more store by the great goddess of fertility, Astarte, from the East.

The rugged enthusiasm of the hinterland for the local deity and for bloody sacrifices penetrated this border town. The serpent-cult may have been known at Beth Shemesh, though much of the representation of these creatures may have been merely decorative. Charms and amulets were imported outright and used in the local manner. The primary instincts of the population were for agricultural Canaan, but their secondary training was richly cosmopolitan.

There were men and families of wealth and ability in early Beth Shemesh. Politics did not concern them much, except as affecting business and taxes. They knew the serene strength of the Twelfth Dynasty, then the disturbance caused by the Hyksos lords, who conquered and administered Egypt for a long time, and, when expelled, made expensive demands on Canaan. Egypt of the Revival and the Empire mastered the region. Probably the most serious danger came with the invasion of the Sea Peoples from the west and north. These were thrown back upon Canaan by Egyptian armies. Similarly, the Habiru tribes from the east and south were a pest and very destructive. By that time Egypt could not, or would not, give protection. We think we see traces of these vicissitudes in the stratification, in lines of destructive fire, in the scarab seals and other findings. In the wake of the Sea Peoples was a guild of clever business men with certain western connections, who got control of Canaanite commerce. Utility was the new note in the distinctly Iron Age.

With the Philistine occupation there was probably no more than such normal accommodation of religious ideas and practices as any thoughtful person might expect in more strenuous times. The larger mass of the population continued to be Canaanite. The city walls, which had been damaged in recent troubles, were reinforced by the lesser system of walls and towers in smaller stones. Fire had done its destructive worst on the buildings of the city, or on many of them. Roof timbers and clay upper storeys had come crashing down on the good masonry of the first storey, and charcoal and ash show where the buildings had smouldered for days. The rubbish piles were, however, smoothed off, and new lines of streets and houses were built. In ten or twenty years one saw a different city. It was up a little higher in the air, it was defended by a wall partly old and partly new. A great deal of rubbish had

been dumped over the wall, and had been allowed to roll part way on the slope. For these reasons, the wall needed to be raised, and the stumps of the old wall made a solid foundation. The old cemeteries were lost, and one would have had to cut through metres of debris and even then find difficulty in locating the mouths of the pits and caves. The prosperity of the city was quickened by good trade conditions and connection was had with a league of cities, so that business may have been more orderly than before.

Matters were not allowed to run smoothly for long. Restless, famished tribes of Semites, called Habiru, with ideas of their own and the physical force to drive them in, overran the country, and disputed all authority. Egypt was powerless, or preoccupied, and the local magnates were driven to make terms or die before the ravagers.

When, in the course of this long contest, we are able to speak of the Hebrew and Philistine, we have reached times suggestive of the Twelfth Century B.C. From that period on we may trace the development of Iron Age pottery for four or five centuries. It would be a fine question to decide how much of the development is to be traced to the basic culture of the Canaanite, how much to the newer efficiency of the Philistine, and how much to the physical impact of the eastern tribes, but utility continued to be the dominant note. The first shock of fire and wreck was purely destructive, and perhaps even more decisively so than in the times of the Sea Peoples; but the new Beth Shemesh did arise, built new buildings and a great street down through the centre of our sector, repaired and certainly extended the great temple, and left remains of a considerable business. The old Phœnician script was known, and a culture which might be called Philisto-Canaanite was enjoyed. This culture ran in an earlier and a later phase, and, while it may be called Israelite out of deference to the masters of the highlands, it was a continuation of that Canaanite Beth Shemesh which had begun to adopt Iron Age styles even before the coming of the Philistines. The useless wall was not repaired again (see Mackenzie). The poorer houses and shops, west of the great street, which was flanked by fine houses, crowded towards the old wall, and actually climbed over it into a new suburb. Beth Shemesh sought again to live on the rich farms at its feet, and perhaps to gather fees from the crippled caravan trade.

Cult objects remain from this period to suggest that the ideas of the great prophets of Israel were not pervasive in the city.

The houses, bins, shops and narrow alleys of the later Israelite dominance were the first masonry uncovered by our expedition, and the layout of that late Israelite city, which never recovered from the blows of the Mesopotamian enemy, was of peculiar interest to us, since it was our first archæological picture of Beth Shemesh. When we began working, the accumulation of 2500 years lay upon it, a fairly friable soil of two feet depth. Most protruding stone had been carried away, and wheat completely clothed it.

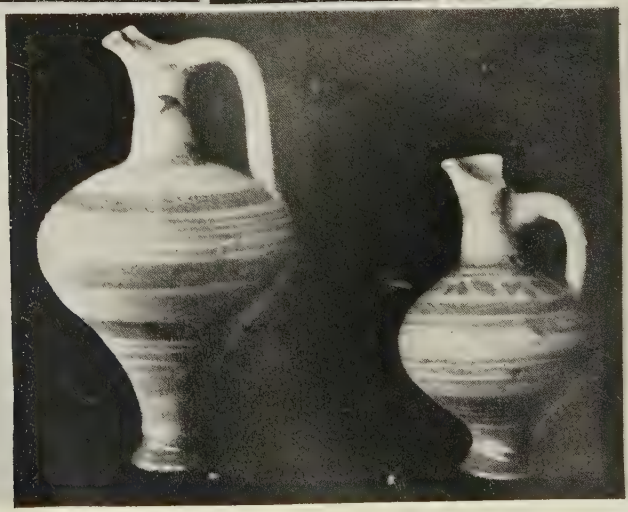
BETH SHEMESH. POTTERY TYPES. 1.—JUGLETS FOUND IN THE SECOND CEMETERY, TOMB 2. 2.—ALABASTER BOWL AND OBJECTS FROM TOMB 2. 3-5.—IRON AGE WARE FROM THE CITY. 6.—TOMB 2, SECOND CEMETERY.

To face p. 210.

1

2

3



BETH SHEMESH. POTTERY TYPES. 1.—FROM T. 2. 2.—CYPRIOTE VESSELS IN TH
FIRST CEMETERY, T. 1. 3.—IMPORTED PIRIFORM JUGLETS.

THE DISCOVERY OF A SYNAGOGUE AT JERASH.

By J. W. CROWFOOT, C.B.E., M.A., and R. W. HAMILTON.

The work at Jerash, conducted during the last two seasons under the joint auspices of Yale University and the British School of Archæology in Jerusalem, has been especially devoted to the clearance of the Early Christian churches on that site. We expected, in the course of this work, to come upon many traces of the earlier classical period, and in this we were not disappointed. The discovery of a Jewish synagogue, however, immediately under one of the churches was a find as unexpected as it was welcome. We knew, of course, from Josephus, that there was a Jewish community at Gerasa in the first century of our era, and that the people of Gerasa behaved much better towards them in the troubles consequent upon the great Jewish revolt than the people in other Palestinian towns, but we did not know that the Jews returned here, nor do we now know when exactly the return took place.

The synagogue was built on very high ground[1], falling steeply away to the south, on a site west of the Temple of Artemis, and between the northern half of the temple enclosure and the city wall. One column and several pedestals were still in position when we began to excavate, and, although there were evident remains of an ambo still above ground, the building was described by earlier travellers, including Schumacher (*Z.D.P.V.*, xxv, p. 140) as a temple.

The excavation of the synagogue was started on April 16th, 1929, under the supervision of Mr. R. W. Hamilton, and the main work was completed a month later, on May 17th.

So much of the synagogue was incorporated directly in the later

[1] This is in accordance with a prescription in the Talmud which is quoted by Kohl and Watzinger : it was, however, perhaps rarely observed.

church that it will be necessary to describe the church in detail first, and I propose to begin by quoting in full the notes upon the church which were put together by Mr. Hamilton, Mr. Jones, and myself.

The Church.

The church is a basilica in plan consisting of a nave and two aisles, the former ending at the east in an external apse. There are courts both east and west of the church, and traces of other buildings to the north.

The main inscription of the church, that in the mosaics in front of the chancel steps, was almost entirely destroyed. A few letters, however, survive, and these happily contain the date—530 A.D. The dedication remains unknown.

Atria.—The western atrium is of irregular shape. The south and part of the west wall have completely disappeared. In the north wall a door and two steps give access to various rooms on that side which were not excavated. This atrium was paved with extremely coarse mosaics.

Some 4 m. in front of the west door of the church stood two columns, to which an Ionic cap found near by, probably belonged: the bases are still in place, and one course of a thin wall connecting them. The whole may have served as a porch to the church. Between these and the door, the end of a rectangular mosaic pavement belonging apparently to an earlier building, and broken by the west wall of the church, was uncovered a few inches below the level of the atrium floor. Of the wall that originally enclosed it, the section opposite the church door was, except for the foundation course, entirely removed: the rest has survived as two L-shaped projections, their broken end about 3 yards apart, flanking the doorway on either side. (*See* Plate 1.) The pattern of the mosaic is identical with that of the north aisle of SS. Peter and Paul, and is surrounded by a guilloche border.

A passage along the north wall of the church connects the two atria: it is not completely excavated, but at the east end traces of stone paving and coarse mosaic were found.

The eastern court is surrounded on three sides by a colonnade consisting of 6 columns on the east, 5 on the north and south—14 in all. The columns rested on square pedestals standing on a stylobate, and carried stone architraves. The pedestals are all

similar in design, but vary considerably both in spacing and dimensions. The enclosed courtyard was paved with plain stone slabs, heavy flags being used along the north side and lighter paving stones in the centre. In the middle of the west side, below the apse of the church, the foundations of a rectangular structure are visible, projecting a short distance into the courtyard and prolonging the line of the nave.

In the atrium alley no trace of paving was found : the surrounding wall, except on the north side, has been almost completely destroyed. At some later date the alleys were adapted to domestic use by the construction across them and between the columns, of rough walls. A flight of four steps leads up to a door in the north wall of the court.

Structure of the Church.—Walls and Masonry.—Owing to the fall away of the ground, the south wall has almost totally disappeared, while the floor of the western half of the south aisle has sunk at least 6 inches. The remainder of the church, with the exception of the north wall, which is about 5 courses high, is deplorably built of indifferent masonry, irregularly coursed, and largely consisting of re-used stones. Of the west wall the southern half seems to be a reconstruction : it is of the poorest material, and is built out of line with the rest. The apse, too, is a miscellaneous agglomeration of materials : it incorporates two or three large blocks perforated by a number of rectangular pipes or channels. Parts of three courses remain ; the lowest roughly semi-circular, the second polygonal. Two pedestals of the type found in the east court have been used as foundations for the responds of the triumphal arch.

Doors.—The church was entered at the west end by a central door with unmoulded jambs : an old architrave block served as a threshold. At the east end of either aisle was a door leading by three steps down into the eastern court : the jambs of that in the north aisle are moulded.

Supports.—The nave and aisles are divided by ranges of eight Corinthian columns, which carried stone architraves. Nineteen capitals altogether remain, but some of these belong to the colonnade of the east court. Of the columns, some of which are monolithic, the easternmost in either range, as well as the seventh (counted from the east) on the south and the eighth on the north, rest on square pedestals similar to those in the court ; the second, third,

fourth and fifth on either side on octagonal ones: of these the pedestal itself measures about 65 cm. in height; the base, which is part of the same block, 20 cm. The remainder are entirely irregular.

Internal Features.—Nave and Aisles.—The nave of the church is paved with mosaics, very imperfectly preserved. West of the chancel screen, and separated from it by a narrow white strip, was a panel surrounded originally by a fret border and containing birds, vines, and the inscription already mentioned. The rest of the floor forms a single field with a rich scroll border. It was divided geometrically into a large number of panels in the same way as the church of SS. Cosmas and Damianus, which was completed in 532 A.D., but in the synagogue church comparatively few of the purely decorative designs which filled the panels are still preserved, and not a single one of the other designs, which, presumably, represented living things, men or animals or birds.

The aisles and intercolumniations were paved for the most part with coarse tesserae: in the south aisle a plain diaper pattern could be traced, in the middle of which were the very fragmentary remains of an inscription, facing the west.

A large number of glass lamp fragments were found towards the west end of the church; the stumps of the hooks from which these were suspended are still visible in the soffits of the architraves and in some of the column drums. Remains of some metal fittings belonging to the west door were also found, including a bronze hinge and a large nail with an ornamental bronze head.

Chancel and Ambo.—The chancel occupies the apse and the two end bays of the nave: it was enclosed by a screen with a single door opposite the middle of the nave. The usual sockets and grooves appear in the step and in the bases of the columns. The eastern half of the chancel, including the apse, is at a higher level and a step, in line with the first pair of columns, leads up to it. The floor has mostly disappeared but a few paving stones remain. A small table stood in the north-west corner of the chancel close up to the screen, and five sockets with some fragments of its legs still survive. The apse, which was originally revetted, was surrounded by the usual seats: these, however, except at the north end, where two tiers are visible, have been destroyed. In the centre of the apse three of the sockets for supports of a ciborium were found in position. An ambo, which breaks into the mosaics

of the nave, projects in the usual place on the south side; part of a marble panel which belonged to its original decoration was found near by.

Later History.—As in other churches, a seat which conceals the edge of the mosaics was subsequently built along the whole length of the north wall. At a still later date a rough construction approached by three steps was built on the west end of this seat: it is composed chiefly of old capitals and column bases. Traces of a similar seat, under which, however, the mosaics do not run, remain in the south aisle.

The domestic occupation of the east court has already been mentioned. Various secondary walls were also found in the atrium at the west end, while inside the church a rough wall was built to connect the western-most column of the northern range with the end wall.

The Synagogue.

So much for the church. The extremely poor quality of the masonry in the apse and at the end, and the relatively careful workmanship of the pedestalled columns in the east court and two-thirds of the nave, and the irregularity of the columns at the west end, showed at an early stage of our work that the church was a reconstruction botched up from some earlier and better building, and at first we naturally thought that it had been converted clumsily into a church out of some Pagan temple. It was in the process of work at the south-east corner that Mr. Hamilton first saw a second line of mosaics about 6 inches below the level of the mosaics in the south aisle of the church. (*See* Plate 2.) The names of Shem and Japhet, which were soon cleared, showed that a picture of the Flood had been represented here: this at once suggested that the earlier building was a synagogue, because, as the discoveries this year at Beit Alpha had already taught us, Jews, unlike Christians, were not averse to representing Biblical scenes on the floors of their synagogues, and a little later the discovery of the Greek inscription under the centre of the apse removed all doubt on the subject. Further mosaics on the same level were found under the north aisle, where there was an inscription in Hebrew, and in the middle of the south aisle, just west of the sixth column. Unfortunately,

the damage caused by the erection of the church made it impossible to determine with any certainty many details of the plan and the exact date of the earlier building.

The Synagogue, Forecourt, and Porch.—The orientation of the synagogue, which lay towards the west, the approximate direction of Jerusalem, was precisely opposite to that of the church, and the present east court was the atrium or forecourt through which it was originally entered. This was surrounded, as now, on the north, south, and east, by a colonnade; the fourth side was partly at least, occupied by a porch or vestibule approached by a rectangular flight of steps whose foundations are still to be seen projecting under the east end of the church. The centre of the court where the paving stones are smaller may have been, as was commonly the case, occupied by a tank for ablutions, the stones for which were used by the Christians in the lower courses of the apse.

At the top of the flight of steps, and much broken by the walls of the later apse, is the mosaic floor (Plate 3) already mentioned, whose width if complete would be nearly equal to that of the church. This, we suggest, was the floor of a sort of covered porch or vestibule. The main feature of this mosaic is a long rectangular panel, facing east, and containing a procession of animal figures in three rows—birds in the uppermost, large quadrupeds in the middle, and below, a rabbit, snakes, and other meaner beasts. The entire panel represented a scene from the Deluge story, for on the extreme left the heads of Shem and Japhet are visible, their names written in Greek, while above them is a dove carrying in its beak an olive twig. (Plate 4.) The Flood picture is surrounded by a border which is decorated with other mosaics; in the middle of the east side there is a representation of the usual sacred Jewish objects—the seven-branched candle-stick with the Lulab and Ethrog on one side and a horn and Torah case on the other—surrounded by a Greek inscription, with animals in rapid motion on each side. (Plate 3, Fig. 5.) On the west and south there is a procession of large animals pursuing each other from right to left. The inscription, which faces west, is incomplete, but the words "Amen Sela Peace to the Synagogue" still survives.

The shape of the border seems to indicate that three doors gave access through a grill or light stone screen, perhaps, from this vestibule to the main body of the synagogue. Here the traces of the building

are somewhat less coherent; they can only be described in relation to the remains of the church.

Nave and Aisles.—In the north aisle a rough cross wall was found in a line with the first pair of columns, and with the western edge of the mosaic. In the corresponding position in the south aisle two blocks, level with the floor, still remain. In the centre, the western half of the chancel and the east end of the nave were occupied by a stone pavement of which the cement bedding survives. How far west this extended is uncertain, but the remains of a fine mosaic floor, largely patched with coarse tesserae, were found between the fifth and sixth pairs of columns, bounded on the west by a fragment of fine guilloche border which passes immediately east of the sixth column into the south aisle. (Plate 2, Fig. 6.)

Beyond this point—in the western half of the nave—no trace of the Jewish floor could be found, a fact easily explained by the appearance of rock inside the west door; the height to which the rock rose at the west end of the church makes it certain that in this area the Jewish level was as high, if not higher than, the Christian level, with the result that the earlier floor was completely destroyed when the later one was laid. That the west end of the synagogue was at a higher level than the central section, and approached from it, presumably by a step, is confirmed further by the level of the mosaic discovered outside the door of the church.

Of the south aisle, in which further traces of the finer work appeared, as well as a great deal of coarse patching, the eastern half was paved with mosaic as far as the sixth column. At this point the foundations of a cross wall were found, and beyond it, no trace of any floor whatever—a fact which explains, perhaps, the marked subsidence of the Christian mosaic in just this area.

In the north aisle, immediately west of the cross wall previously mentioned, is a coarse diaper patterned mosaic extending the full width of the aisle and reaching in two panels to the third intercolumniation. From here to the west wall of the church it is replaced by a narrow strip in a similar style, extending less than half-way across the aisle. The inner edge of this mosaic fits close round the octagonal pedestals, but is broken by the rough bases at the west end and underlies the easternmost of them. Between the last of the columns and the end wall there are traces of a return of the pattern.

At the east end of this strip is a rectangular panel containing a five-lined inscription in Hebrew characters giving the names of benefactors. This inscription faces east. (Plate 5.) We have to thank Dr. Cowley for the following transcription and translation of this inscription :—

שלום על כל
ישראל אמן אמן
כלה פינחס בר
ברוך יוסה בר
שמואל יודן בר חזקיה

Peace be upon all
Israel, amen, amen,
All of it. Phinehas son of rabbi
Baruch. Jose son of rabbi
Samuel. Judan son of rabbi Hezekiah.

l. 3.—כלה not סלה.
בן רבי = בר (not Aramaic).
l. 5.—שמואל. The מ is strange, but must be so read.

The rectangular projection found in the west atrium of the church is probably the end of the chamber where the ark was kept) (*see* Plate 1) ; the traces of what may be responds, 62 cm. across, are still visible incorporated in the west wall of the Christian building.

We cannot be quite certain, as we have said, about many details of the plan of the synagogue, but about the main features there is less doubt.

It was entered through a columned forecourt in the centre of which there was probably a fountain or laver of water. On the west side of this court a wide flight of steps led where the apse now stands to a raised platform which may have been shaded by a portico ; this platform was paved with mosaic representing the story of the Flood, the figures facing worshippers who entered it from the court. A representation of the seven-branched candlestick with a Greek inscription facing the main building lay between the

1.—Jerash. View of the Church built above a Synagogue. Looking East: In Foreground part of Western Atrium; in Middle Background, Temple of Artemis: in Centre of Church, the Ambo Behind the Standing Figure.

FIG. 2.—JERASH. FIRST GLIMPSE OF THE SYNAGOGUE LEVEL UNDER THE SOUTH AISLE OF THE CHURCH. NOTE HIGHER LEVEL OF CHANCEL FLOOR BEYOND.

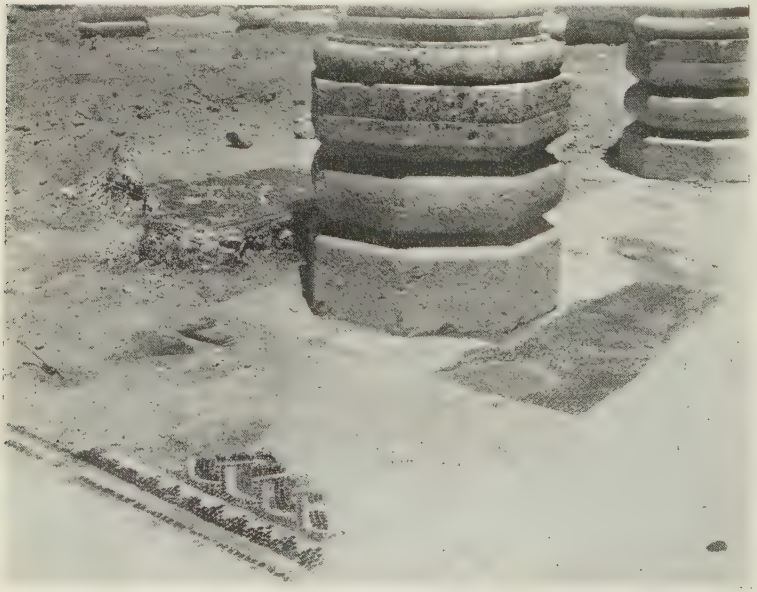
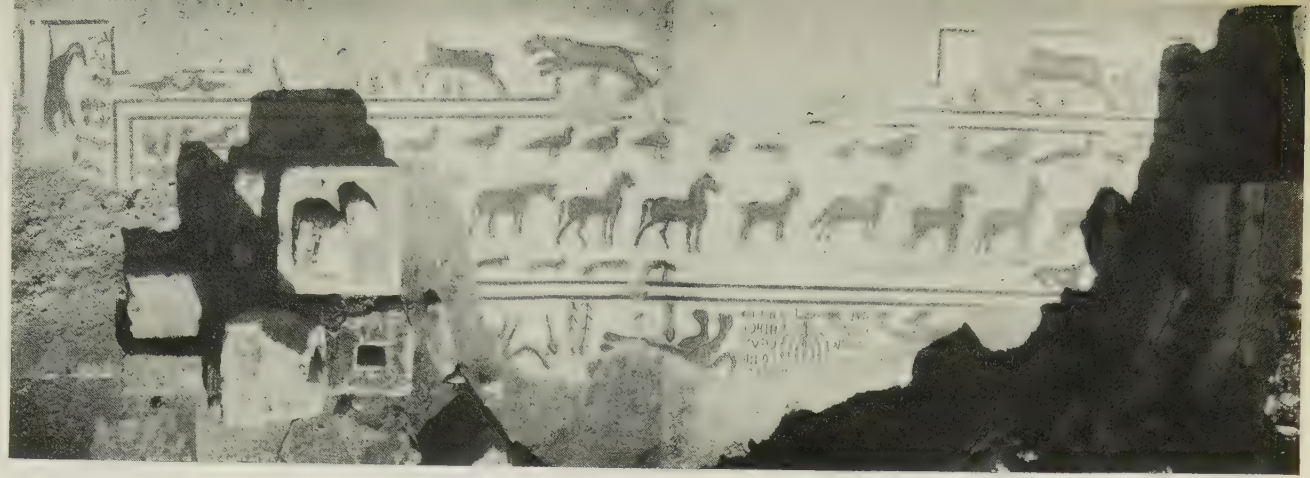


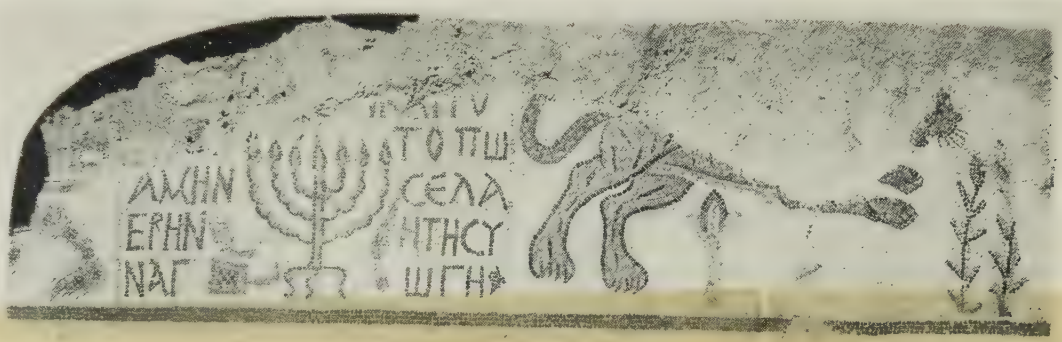
FIG. 6.—JERASH. PEDESTALS OF FOURTH AND FIFTH COLUMNS ON SOUTH SITE OF NAVE STANDING ON ORIGINAL SYNAGOGUE LEVEL TO WHICH THE FINE MOSAIC WITH THE GUILLOCHE BORDER BELONGS. THE LEVEL OF THE CHURCH MOSAICS IN THE NAVE VISIBLE NORTH OF THE PEDESTALS.

3



3.—Jerash. Line of Mosaics Representing the Deluge, &c., in the Entrance to the Synagogue Under the Apse of the Latin Church.

5



5.—Jerash. Mosaics. For Position See No. 3.

FIG. 4.—JERASH. MOSAICS OF THE DELUGE STORY: FOR POSITION SEE NO. 3.

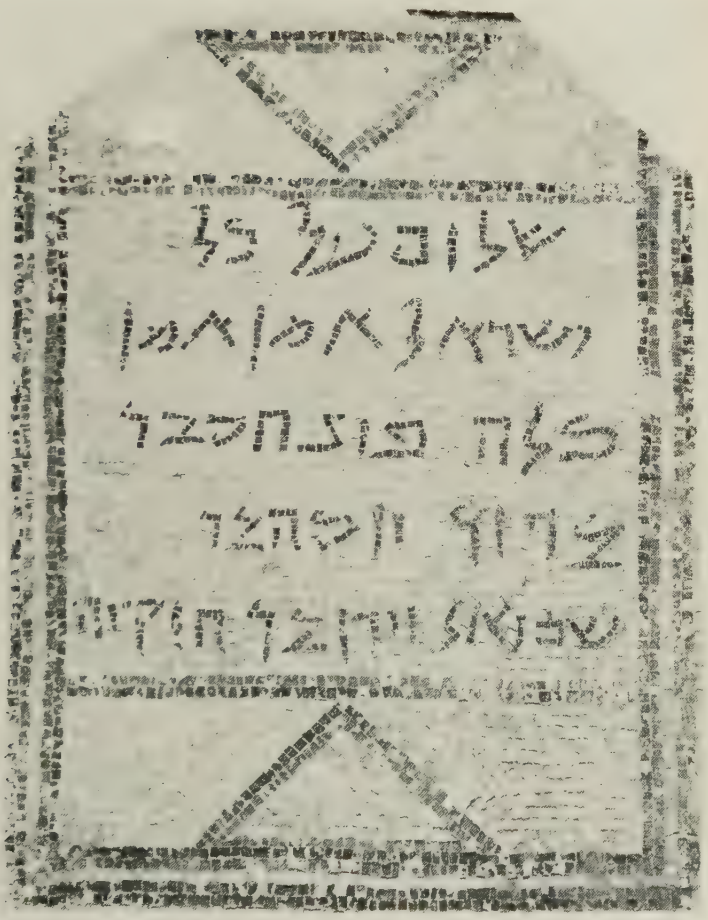


Fig. 7.—Jerash. Jewish Inscription in the Middle of the North Aisle.

steps and the picture of the Flood. Three doorways led from this platform to the main chamber, which consisted in a nave and two aisles. The nave was divided from the aisles by columns on pedestals, four of which on each side are still in their original positions. The nave was probably paved with marble slabs, which were levered up to be re-laid in the chancel of the later church, and the aisles with mosaics; wide benches of masonry, reaching on the north side to the limit of the mosaic strip which contains the Hebrew inscription, ran along the north and south walls. West of the sixth column the central portion may have been raised slightly above the level of the later church, and approached consequently by a step, and beyond this there was a projecting chamber which contained the ark. What the south-west corner was like we cannot say.

About the date also we cannot speak with much confidence. The pedestals of the columns, which are of a type found elsewhere at Jerash, at Heshbon, in Galilee, and elsewhere, can hardly be earlier than the 4th century A.D. and may not originally have been cut for this building. The mosaics of the Flood and the fragment in the south aisle are better laid than those in the churches of the sixth century, and they had been already repaired in various places before the synagogue was destroyed, but this hardly warrants us in assigning a great age to the building. The inscriptions give no date, nor does the epigraphic character of the lettering, so far as we can learn. There is no real accumulation between the levels of the church and the synagogue: it is possible, indeed, as has been suggested above, that the west end of the synagogue was actually higher than the west end of the church, and in this case the few inches between the two levels elsewhere may have been supplied by a simple transfer of *debris* from the west end when the conversion was made. The church was built in 530 A.D. at the beginning of Justinian's reign, while Paul was still Bishop of Gerasa, and there were three other churches in process of building at this time in Gerasa which may account for the indifferent construction of the church walls on this site. All things considered, it would be unsafe without further evidence to assign to the synagogue a date earlier than the 5th century A.D.: its downfall may be connected with the well-known anti-Jewish policy which marked Justinian's reign.

EXCAVATIONS IN THE MUGHARET EL-WAD, NEAR ATHLIT. APRIL-JUNE, 1929.

By Miss Dorothy Garrod.

By special request of the Director of Antiquities the excavations at Shukba were suspended during the 1929 season, in order that the more urgent matter of exploring the caves of the Wady el-Mughara, near Athlit, might be dealt with. Mr. C. Lambert, acting on behalf of the Department of Antiquities, had made soundings in the largest of these caves, the Mugharet el-Wad, in the late autumn of 1928, with rather sensational results. Associated with a microlithic industry, resembling that discovered by us last year at Shukba, he found human burials and a whole series of objects fashioned in bone. Of these the most remarkable was a carving, in the round, representing a young animal, probably a bull-calf, the first prehistoric work of art recorded from the near East.

The excavations of the British School of Archæology in Jerusalem were undertaken in collaboration with the American School of Prehistoric Research, and lasted through April, May, and June. Miss E. Ewbank of Lady Margaret Hall, Oxford, and Miss M. Kitson Clark, of Girton College, Cambridge, accompanied me as members of the British School, and Miss Harriet Allyn, of Mount Holyoke College, represented the American School of Prehistoric Research.

The Mugharet el-Wad, which is a very large cave, lies on the South side of the Wady el-Mughara at the point where it opens on to the coastal plain, and looks towards the sea.

At a date which has not yet been determined, a massive wall was built across the main entrance of the cave, and a smaller opening was adapted to take a wooden door. The cave consists of two main chambers, leading to a lofty corridor some 60 metres in length.

The excavations showed that the outer chamber had been extensively disturbed, possibly in Byzantine times; but at a depth of 1.80 below the surface we struck a patch of deposit containing a microlithic industry in place, associated with a collective burial of ten human skeletons (four adolescents and six children).

Underlying this deposit was a crumbly breccia containing a Mousterian industry. This was found all over the outer chamber, and had apparently been unaffected by the disturbance of the overlying layers.

The microlithic layer yielded a large number of bone points and beads similar to those obtained by Mr. Lambert, but the most interesting find was a small pebble roughly carved into the form of a human head, which lay immediately under one of the skeletons in the collective burial described above.

A few sherds of pottery were found in the microlithic layer, but they were all dateable as of historic age (chiefly Byzantine) and had evidently been carried down, by burrowing animals, from the overlying disturbed layer which contained pottery of every period, from bronze age to late Arab.

The inner chamber was fortunately undisturbed, and contained a sequence of Palæolithic industries more complete than any yet found in Palestine. The section was as follows :—

1. Bronze age to recent—60cm.
2. Microlithic—10cm.
3. Upper Palæolithic—70cm.
4. Upper Palæolithic, (Middle Aurignacian)—80cm.
5. Upper Palæolithic—40cm.
6. Mousterian—depth unknown.

The Upper Palæolithic industry of layer 4 is practically identical with the Middle Aurignacian of Western Europe, but layers 3 and 5 present a more difficult problem. The industry of layer 3 recalls to some extent that of the Chatelperron level, which in Western Europe is found *below* the middle Aurignacian, whereas layer 5 contains an industry characterized by very delicate flint points which

cannot at present be classified. The flints from both these layers will have to be very closely studied before any conclusion can be reached, but meanwhile they can safely be put under the general heading of Upper Palæolithic.

The Mousterian level has hardly been touched this year, but the industry appears to be identical with the Upper Mousterian of Shukba.

A word must be said about the Microlithic industry. In a general way this resembles the Mesolithic culture of Shukba, with its crescents and sickle blades, but at Athlit the different types are more developed, and more highly finished. I think there can be no doubt that the two industries are fundamentally the same, but it is probable that at Athlit we have a somewhat later stage than at Shukba. The facts that no contemporary pottery is found with this industry, and that the overlying layer contains sherds identified by Père Mallon as Chalcolithic, seem to confirm the Mesolithic date which I suggested last year. As it will be convenient to have a name for this culture, I propose to call it Natufian, after the Wady en-Natuf at Shukba, where we first found it in place.

Enough has been said to show that the Mugharet el-Wad is a very fruitful site, and we hope next season to complete the excavation of the inner chamber and to explore the corridor.

Other small caves in the neighbourhood have yielded Mousterian remains, and, if our funds hold out, we intend to examine these as well.

A ROCK-CUT PLACE AT SKIFTA.

By J. Prip-Möller, M.S., M.A.A., of the Missionary Home, Shanghai

During my temporary stay, Autumn 1928, in the Kalamun district, Syria, a place near Yabrud (a town in the Antilebanon, about 100 kilometres NNE of Damascus), situated as indicated on the accompanying sketch map, was pointed out to me as probably being an old place for offering sacrifices. As the lay-out as well as its location seemed to suggest a former connection with old rites rather than with, *e.g.*, wine-pressing, I found time for taking the measurements necessary for making the drawings here reproduced. Lack of time prevented the complete finishing of the work, *e.g.*, a complete elevation and a few sections might have helped to enlighten the subject. But the material presented will, together with the photographs, probably be sufficient to give an idea of the character of the whole lay-out and for deciding, whether it served religious, or merely industrial or other non-religious purposes. (See Plate 1.)

Hills fence Yabrud from North and West, and at the point where the site in question is located the hills slope off into a stony plain, which runs westward towards the Antilebanon proper. The site lies at the north-west opening of a comparatively narrow pass, to the bottom of which the rocks go steep down ; contrary to the other places shown on the map, where a big slope of sand and mouldering stone covers a greater part of them.

Almost opposite the site, on the other side the road through the pass, a subterranean well bursts forth from under the rocks and flows down through the valley irrigating the gardens and the fields. Along its course on the north-east side are found several rock-hewn tombs and a place, where as tradition has it, a holy man dwelt in former days ; here a burning oil lamp is still put up every night by the fellahin, who presumably try to preserve for the valley the good influences of his spirit still hovering there.

Plate II, Fig. 1 shows the site in question as it appears from the

opposite side of the pass. The rock in front of it slopes gently down towards the road, making the access from here quite easy; no steps leading up are found.

The lay-out itself consists in general of the following five parts, viz.: (I.) In front of the altar[1] a fairly level space, the outline of which towards the altar is of a rough semi-circular shape, while towards the south-west the plain joins in with the natural slope of the rock. (II.) The altar proper with several steps leading to it and forming the central and outstanding feature of the whole lay-out. (III.) The five deep oblong holes located, as it seems, without any relation to the central axis of the lay-out common for all of them. (IV.) The area to the rear of the altar created by cutting down in the rock to a depth varying from 0 to about 30 centimetres. (V.) On this area two blocks left standing when the surrounding parts were cut away.

As regards (I.) By the intersection of the comparatively level plan of this place with the natural slope of the rock, a crescent-formed wall is created, which is highest immediately in front of the altar steps, while owing to the slope of the rock, it immediately decreases into nothing as soon as it takes its forward bend to the north-west almost immediately to the south-east extending a little further before it disappears. The surface is but roughly cut and does not show the careful dressing, which the altar and its steps display. At a distance of 4.5 metres to the south-west from the bottom of the crescent a hole is found, situated about 0.8 metre to the north-west of the middle axis and 0.3 metre in diameter. Its depth I was unable to ascertain, owing to the sand and stone accumulated and my lack of tools necessary for clearing it out. In the rear wall of the crescent, a little to the left from the middle axis when one faces the altar, two recesses are cut, leaving between them some sort of a short pillar with a rough mould at the base. This particular feature shows a finish somewhat similar to that of the steps and altar above. The top of the pillar is worn and slightly damaged. In the level part of the rock just below the riser of the lowest of the four steps and a little further left than the pillar a shallow hole is cut, the depth of which does not exceed 2 centimetres; it is of irregular shape and its edges worn.

[1] For the sake of convenience the term "altar" in this article will designate the square top stone with the round disc, in the centre.

As for (II.) The altar proper rests upon four steps, the uppermost of which takes the shape of a raised platform of rectangular shape. On this platform at its rear lies a practically square block of nearly the same height as the steps, its upper part forming a round disk, and the whole resembling, as it were, a rough moulded column base. On top of the disk round the edge a groove is cut, while a small groove cut through the mould forms a sort of outlet towards the south-west from the bigger circular one. The surface of the stone just below this outlet is discoloured, having assumed yellowish colour against the natural greyish of the rock.

In front of the altar a square hole is cut down in the platform. Its depth is nearly the same as the height of the platform and at the bottom a circular hole extends further down. The step below the platform is divided into two parts by the cutting of a similar hole. In both cases sand and stone had accumulated in the round holes, and prevented the measuring of the actualdepths. The "noses" of the steps follow at their south-east end quite closely the natural slope of the rock, indicating that the final result has been obtained with the least possible amount of labour involved.

The slope of the rock has allowed for carrying the first step below the platform round along the north-west side of this latter; at the rear it becomes level with the rock and disappears. This is also the case on the south-east side, and the width of the tread is here indicated by a groove in the surface. The two lower steps run in but one direction, north-west to south-east.

As regards (III.) Of the oblong holes, five in number, two are located to the right and left of the altar, their position being somewhat symmetrical around the middle axis; further south-east and north-west two others are found, parallel to each other, but with their longitudinal axis pointing more towards west than the former ones. Finally, one is located in front of the altar steps to the north-west of the middle axis and at an angle to this of about 120°. The exact depth of these holes could not be ascertained on account of the accumulation of sand and stone at the bottom. Their shape was rectangular, the sides neatly dressed and straight, meeting at practically right angles with each other. At an average depth of about 1.80 metre the two to the south-east of the middle axis and the one farthest north-west showed an offset of about 10 centimetres wide, following the three sides of the holes, while the one on

the fourth curved as indicated on the plan. This curve was visible in the two holes farthest away from the middle axis. Digging probably would have revealed the same features in the third as well as also in the two others, where the present accumulation would cover such offsets if they were to be found at a similar distance from the surface.

The two minor holes indicated on the plan near the big one farthest north-west are shallow, only 3 centimetres in depth. One of them has a brim or offset around the three sides, making all four edges on a level in spite of the sudden rise of the surrounding rock.

As regards (IV.) To the rear of the altar the rock has been levelled off, and forms on a whole a plain, sloping towards south-west. Its distinct features seems to be the irregular form of its outer edges and the shallow grooves which cross it here and there.

It consists of an upper rear part and a lower front part. To the north-west these two parts are connected with a more or less gentle slope, while to the south-east a distinct set-off about 20 centimetres in height separates them from each other. In some places (*a*, *b*, *c* on the plan), the surface of the living rock is level with the cut surface within the edges, and grooves or gutters may be seen here quite distinctly, especially at "*a*." Just at the rear of the platform for the altar, a groove is connected up with one coming from the upper part of the plain; another runs parallel to the altar on its north-west side and between it and the big hole on the same side. Both ends of this groove are bent right to the edge of the big hole. Further, another groove is found leading from the edge of the hole farthest north-west to the pillar at the bottom of the crescent. The bent course of the groove is necessitated by the slope of the rock here.

As for (V.) To the north of the altar two blocks are found, the first rising close to the platform, the other marking the north-west end of the transition from the lower to the higher plain. Both are of an average height of about 25-30 centimetres, and of irregular circumferences; the one nearest to the altar has a square shallow hole in the middle of the surface and in the side projecting towards the altar a small recess as indicated on the plan.

What is said above is intended only to describe the lay-out, so as to enable others to form a well-based opinion on the character of its original. A comparison with the altars found at Petra suggests

3 4

ROCK-CUT PLACE AT SKIFTA. 1.—SITE AS SEEN FROM THE OTHER SIDE OF THE PASS. 2.—LEVEL SPACE BEHIND ALTAR, SEEN FROM THE WEST. 3.—THE ALTAR SEEN FROM NORTH-WEST. 4.—THE ALTAR, SEEN FROM THE SOUTH.

[To face p. 227.

itself for historical reasons, and actually there seems to be a striking resemblance, *e.g.*, between the pillar in front of the altar above described and the pillars found at Petra and mentioned by Prof. Dalman.[1] a resemblance which goes even to the mould at the base. The big oblong holes by their form as well as by their size suggest graves, and their location around the raised platform and the steps leading thereunto, make it possible to suppose that we here have an old place for offerings surrounded by graves of the priests.

Note by Dr. Dalman.

Being asked to give my opinion about the remarkable "altar," found by Mr. Prip-Möller, I have first to note, that it is indeed difficult to understand it as a winepress or olivepress. In that case one would expect an arrangement for the pressing stone, because the primitive system of a stone rolled by hands is not likely in this case. Then, one would rather think of an altar for sacred libations. Of the two holes on the steps of the altar, the upper one could serve as receptacles for the fluid—wine or water—running down from the altar, the lower one might be the basin from which the fluid was taken for libation. Nothing quite similar to this arrangement has however, been found at Petra, where six prolonged visits enabled me to publish what may be called an inventory of the sacred objects to be seen there, which—I am sorry to say—until now has not been completed by others. Even the lion, the picture of which was given in the *Q.S.* 1927, p. 155, had already been published by me in 1908.

A cup for libation with gutter I saw there only in two cases (see my *Petra und seine Heiligtümer*, p. 169 sq ; *Neue Petraforschungen* p. 67). To the small pillar at the foot of the staircase, a pillar in a niche, the picture of which I give in *Petra*, p. 125, 134, especially is similar.

As tombs surround the altar, it is likely that the libations poured on the altar were meant for the benefit of the dead, not priests, in a way which also seems to occur at Petra. The pillar may mean a divinity, but could even put in remembrance a dead person. It is self-evident that the altar was not meant for burnt-offerings, which also is true of the numerous altars of Petra.

[1] See "Petras Helgedomer," *Ord och Bild*, 1920, pp. 360-361.

THE BOUNDARY OF EPHRAIM AND MANASSEH.

By Rev. W. J. PHYTHIAN-ADAMS, M.A., D.S.O., M.C.

An interesting and somewhat curious problem concerns the boundary-line which divided the two tribes of Joseph. It is the purpose of the present article rather to propound this problem than to offer a solution of it; but it is hoped that the tentative suggestions with which it closes will be found of some interest by students of Israelite history.

I.

1. Our starting-point is naturally the boundary outlined in Joshua xvi., 6-8, and xvii., 7-10 (both generally assigned to the source "P"[1]). About this, fortunately, there is little doubt and no serious dispute. From Michmethath (generally identified with Kh. Mukhnah el-Foka) the line ran eastwards to Ta'anath Shiloh (T'ana) and westwards to the Nahal Kanah (Wadi Kanah) and the sea. Somewhere along this westward extension of the boundary lay Tappuah, the town itself being assigned to Ephraim and its "land" to Manasseh. Although the present Kh. Tafsah seems to be too insignificant and recent a ruin to be identified with Tappuah, yet its position is exactly that in which we should naturally search for the ancient city, the approximate location of which is not in doubt. This line, it should be noted, forms an excellent boundary, following as it does well marked features of the country.

2. We may proceed, then, without delay to our first contention,

[1] This is, however, disputed by Dr. Albright: "The probabilities seem to point towards a compilation of 'J E' in the seventh century; P's additions were very slight and unimportant" (*Journ. Pal. Orient. Soc.*, vol. v., p. 19, n.9.). The evidence dealt with in the present article certainly favours a reconsideration of the critical analysis.

which is that such a frontier not only conflicts with early tradition, but is actually disproved by later history.

(*a*) The story of Jacob's deliberate preference of Ephraim over Manasseh, the true first-born, is so familiar to every reader of the Bible that we need not dwell upon it (Gen. xlviii., 13-20). It may be noted, however, that this preference is ascribed to the far greater numerical superiority which Ephraim was to attain over his brother (Gen. xlviii., 19).

(*b*) This superiority is reaffirmed in the "Blessing of Moses" (Deut. xxxiii, 17: "They are the ten thousands of Ephraim and they are the thousands of Manasseh"). The date of this poem cannot be long posterior to the song of Deborah, for it treats Judah as in isolation not merely from the northern tribes who composed the later kingdom of Israel, but even from Benjamin, with whom Judah was intimately associated from the Great Schism onwards.[2]

(*c*) The hectoring tone adopted by the men of Ephraim towards Gideon and Jephthah (both Manassites) is a significant indication of the greater importance of the "younger" tribe. Both narratives suggest, further, a comparative isolation of Ephraim in the hill-country. This is especially noticeable in the story of Gideon, who summons the tribesmen of Asher, Zebulon, and Napthali at the outset of his campaign, but refrains from sending any messenger to Ephraim until the enemy is already in flight (Judges vi, 35; vii, 23-24).[3]

(*d*) A natural explanation for so curious an action on the part of a Manassite is readily forthcoming if we consider the tribal inheritances hinted at, rather than described, in the earliest sources of Joshua (Joshua xvi, 1-3, 10; xvii, 10-18). Here we find the house of Joseph receiving one lot between the two tribes and complaining of its insufficiency; and it is obvious both from the narrative and from subsequent events that it was Manasseh and not Ephraim which felt the pinch. It was Manasseh which was crowded out northwards and north-eastwards and north-westwards, receiving from Asher and Issacher the dubious privilege of "inheriting" the impregnable

[2] See *Journ. Pal. Orient. Soc.*, vol. iii., p. 158 sqq., where the present writer discusses the problem at length.

[3] The fact that Issachar is not mentioned in these chapters, though it must have been the chief sufferer from the Midianite invasion, is a suggestive indication of its intimate connection with Manasseh. It was on Tabor, within its territory, that Gideon's brothers were slain. (Judges viii., 18.)

fortresses of Esdraelon, Naphath-Dor, and the Valley of Jezreel (Joshua xvii, 11). It was Manasseh which was finally compelled (according to the view now generally accepted) to cross the Jordan into northern Gilead and find a home there for the surplus of its population. This earliest tradition, in short, confirms entirely the vastly greater superiority of Ephraim *at the period of the settlement*, and makes it clear that *at this time* the scattered clans of Manasseh were in much closer touch with the tribes bordering upon the Great Plain than with their own "Joseph" brethren in the hill-country of Ephraim.

(*e*). Considerations such as these are sufficient in themselves to disprove the existence in early times of any such boundary line as the later sources have described. But they do not stand alone. Even as late as the time of the first Jeroboam, Shechem itself is described as lying in the hill-country of Ephraim (1 Kings, xii., 25; *cf.* Joshua xx., 7; 1 Chron. vii., 28).[4]

This is far more significant than it may appear at first glance. We are so accustomed to a light-hearted and frequently quite meaningless application of names that the mere stereotyping of them may very often gravely mislead us. "Mount Ephraim," it is necessary to remind ourselves, is no haphazard title; it describes that hill-country of Palestine in which the tribe once dwelt and on which it imposed its name. It follows, therefore, that at some period in the history of Israel, a period which must range at the least from Joshua to Jeroboam I, the tribe of Ephraim, possessing, as all the available evidence shows, an immense numerical superiority over the true "first-born" Manasseh, was in occupation of the entire central highlands of Palestine from Gezer and the Gibeonite (Benjamite) frontier in the South, to a line not far short of the great plain of Esdraelon (*cf.* Josephus, *Ant.* v., 1, 22). This, let it be repeated, is entirely congruous with the traditional importance of Ephraim. It is no more than could be expected; but it is in radical conflict with the boundary assigned by "P," and it is perhaps typical of this conflict that Tirzah, the capital of the *Ephraimite* Jeroboam, should be identified by the later writer with a female descendant of Manasseh.

[4] In 1 Chron. vii., 28, "Shechem and the towns thereof" are actually named among the possessions of Ephraim.

(*f*) The family tree of Manasseh will be discussed in detail below. It presents, as we shall see, several curious features. Most curious, however, of all is the fact (which may be dealt with here) that three of these Manassite descendants, Shechem, Hepher, and Tirzah, are unmistakeably pre-Israelite in origin. It is true that the Manassite Shechem has been disguised by a different "pointing" from the famous city of that name, but no one who sees it side by side with Hepher and Tirzah will be deceived. Both of these occur in Joshua xii. (generally assigned to the Deuteronomic editor) as the names of Canaanite cities whose kings were slain by Joshua. How far this list may be regarded as historical is, of course, open to doubt, but it is at least reliable on the score of date alone as a disproof of the Manassite origin of the towns. Indeed the more we study the confused and yet somewhat insistent[5] genealogies of this tribe, the more clearly is the conclusion forced upon us that a practical necessity underlies their claims. What that necessity was seems evident of at least two of them—Shechem and Tirzah. Both of these, we have seen, must have passed from Canaanite into Ephraimite hands. If later both became Manassite, the need for explaining this curious change becomes immediately obvious.

3. We may pass, then, to the consideration of another equally curious and most significant fact, that in some later sources *Manasseh is restored to his priority as "first-born,"* and that not by accident, but by design.

(*a*) It is very noticeable that in "P.'s" description of the boundary he places Manasseh *before* Ephraim (Joshua xvi., 4); and adds, as if in justification of his action, that Manasseh was [after all?] the first-born of Joseph (Joshua xvii., 1). There is indeed no reason for inserting such a statement, except the fact, as plain to the ancient writer as to us, that the boundary which he describes does in effect give a vast preponderance of territory to Manasseh, and leaves Ephraim "cribbed, cabined, and confined" within an incredibly small portion of the hill country of central Palestine.

(*b*) But this preference of Manasseh to Ephraim in Joshua xvi. does not stand alone. It meets us with even greater emphasis in Num. xxvi. Here once more Manasseh appears in front of Ephraim

[5] The daughters of Zelophehad appear in Num. xxvi., xxvii., and xxxvi.; Josh. xvii.; and 1 Chron. vii. The insistence on such a detail seems to require an explanation.

(Num. xxvi., 28); but what is still more remarkable is that the smaller tribe is reckoned as numbering (at the end of the Wandering) 52,700 souls as against the 32,000 of Ephraim. So glaring a contradiction of the dominant tradition of early times can never have occurred by accident. The sole justification for it must be that it corresponded, in some degree at least, to the historical position of a later day, when Ephraim had declined and Manasseh had recovered the lead. Once we entertain the possibility of such an event, we may discover a new significance in a passage which follows in the same chapter. "And the Lord spake unto Moses saying, Unto these the land shall be divided for an inheritance according to the number of names. *To the more thou shalt give the more inheritance, and to the fewer thou shalt give the less inheritance.* . . . Notwithstanding the land shall be divided by lot. . . . According to the lot shall their inheritance be divided *between the more and the fewer*." (Num. xxvi., 52-56). In face of the numbers already given for Manasseh and Ephraim, the boundary of Joshua xvi. and xvii. becomes, not merely intelligible, but necessary. Conversely (and we shall see that this is much more probable), if such a boundary actually existed at some period in Israelite history the priority restored to Manasseh[6] its very great preponderance of numbers, and the repeated emphasis on its genealogical tree are readily explicable as efforts to account for recognised facts which were yet at variance with the traditional preference of Jacob for Ephraim.

4. We may briefly summarise our conclusions at this point. We have found (i) that the boundary assigned by "P" in Josh. xvi. and xvii. is an impossible one for the date to which the writer ascribes it, and hence (ii) that one or two conclusions follow: either the entire narrative is fictitious, a deliberate glorification of the first-born of Joseph by a writer whose prejudices for some reason inclined that way, or the boundary described by him actually existed at a later date and was due to a real decline and shrinking of Ephraim and a

[6] The same priority is observable in Num. xxxiv., 23-24, and 1. Chron. vii., 14. It is noticeably absent in the document ("P") which composes the first ten chapters of Numbers, as also in Num. xiii., 8-11 (also "P"). It is, in fact, obvious that it is confined to one only of the various sources usually assigned to "P." Isaiah, however, puts the names in the order M.E. (ix., 21).

real resurgence and southward advance of Manasseh. It is to the second of these alternatives that the evidence seems to incline.

(*a*) We have, in the first place, the Canaanite and later Ephraimite city Tirzah appearing, still later, as a female descendant of Manasseh. This can be due to one cause only, the historical fact that Tirzah came at some time into the possession of that tribe. Now the position of this city can be narrowed down to a definite area, the area lying immediately to the north of Tappuah. In 2 Kings xv., 14-16, we find Menahem plundering Tappuah (M.T. Tiphsah ; Gluc. $\tau\alpha\phi\omega\sigma$)[7], from Tirzah, and the context shows clearly that the territories of the two towns were contiguous. Tirzah lay therefore in the hills just north of the boundary-line Mukhnah—Wadi Kanah, and may possibly be found at El-'Arak. It was at any rate well within the earlier limits of Ephraim and was, in fact, as we have noted, the capital of the Ephraimite Jeroboam I.

(*b*) We have, in the second place, the important evidence of the ostraca found at Samaria and recently published by Reisner. The revenue-districts named on these include four out of the six clans of Manasseh (Shechem, Abiezer, Shemida, and Helek), and two subclans, Noah and Hoglah, of a fifth (Zelophehad " son " of Hepher). This in itself is remarkable, as showing the importance of Manasseh in the middle years of Ahab's reign (the ninth, tenth, and fifteenth are actually mentioned) ; but what is of still greater significance for our present purpose is that the distribution of these clans, as worked out by Abel and Albright[8] from the identification of the place names on the ostraca, is one that conforms exactly to " P's " boundary-line of Joshua xvi. and xvii. Instead of being (where we should expect them from the earlier sources of that book) on a long and extended line from Dor (Tanturah)[9] to the slopes of Gilboa above Bethshan, they are clustered in the hill-country of Samaria and Shechem, with outliers such as Tirzah and Almaton (mod. Amatin) bordering closely on the Wadi Kanah.

[7] Albright has pointed out that "in old Hebrew cursive the letters *samek* and *waw* are often indistinguishable." (*Op. cit.*, p. 30 ; n 29.)

[8] It is to Dr. Albright's valuable article on the " Administrative divisions of Israel and Judah " (*op. cit.*, vol. v., pp. sqq.) that the present writer is indebted for a detailed consideration of these ostraca.

[9] A renewed study of the problem of Naphath-Dor has converted the present writer to the orthodox identification. The evidence of the Solomonic districts seems to him now to overpower any possible alternative.

Dr. Albright, indeed, places Hoglah and Mahlah tentatively to the north of Michmethath (Mukhnah) and Ta'anath Shiloh (T'ana), and though this must remain for the present problematical, it seems at any rate necessary to locate them in the general neighbourhood of their "sister" Tirzah. The area lying between Shechem and the boundary will then have been occupied entirely by the five "daughters" or off-shoots of the clan of Zelophehad.

5. The evidence which we have been considering would seem to point to the following conclusions :—

(i) At the time of the Israelite settlement in Palestine, the tribe of Manasseh was numerically far inferior to its brother-tribe of Ephraim. In consequence of this, it was squeezed out of the comparative safety of the hill-country and compelled to find its inheritance in the dangerous proximity of the Canaanite fortresses of Esdraelon and the valley of Jezreel. It found relief from this situation by a partial emigration to northern Gilead.

(ii) At the time of Jeroboam I. (and hence during the reign of Solomon) no change is visible in the distribution of the tribes. It should be noted that one of Solomon's Officers had charge of Mount Ephraim. This, as we know from the notice of Jeroboam's reign, still included Shechem.

(iii) At a date not later than the opening years of Ahab's reign, the situation has been completely altered. The northern boundary of Ephraim has shrunk to the Wadi Kanah and a line running eastward from it. The whole of the hill-country north of this line is now occupied by five out of the six clans of Manasseh. This shrinkage of Ephraim and increase of Manasseh seems hinted at in the figures of Numbers xxvi.

II.

Is it possible to find any explanation of this "catastrophe?" It has been pointed out at the beginning of this article that its purpose was rather to present the facts than to offer a solution of them. There are, however, certain scattered clues which seem strong enough to form the outline of a theory. On the death of Solomon, the northern tribes revolted, and the leader of that revolt, Jeroboam, was an Ephraimite. Had we no evidence of his tribal origin, we might have guessed it, for, up to this time, it is Ephraim,

and Ephraim only, who figures as the leader of northern Israel. Jeroboam reigned at Tirzah for twenty-two years, but with the murder of his son Nadab, after a brief reign of two years more, his dynasty came to an end. Baasha, the usurper, who succeeded and reigned for twenty-four years, was a tribesman of Issachar (1 Kings xv, 27). His son Elah followed the same fate as Nadab, but Zimri his murderer enjoyed his throne for only seven days. Unfortunately we know nothing about Zimri, except that he commanded half of the king's chariots; yet his name is of some interest. Zimri appears in the genealogical lists of Benjamin as the name of a direct descendant of Saul in the sixth generation (1 Chron., viii, 36; ix, 42). This is perhaps a mere coincidence, but it is at least worth pointing out that after twenty-four years of an Issachar dynasty, whose interests and sympathies would necessarily lie in the Great Plain rather than in the hill country, there might well have been a strong reaction in Mount Ephraim and a general desire there to see the old line restored. It is certainly remarkable that the death of Zimri did not put an end to the troubles of Omri his successor. "Then were the people of Israel divided into two parts: half of the people followed Tibni the son of Ginath, to make him king: and half followed Omri. But the people that followed Omri prevailed against the people that followed Tibni the Son of Ginath: so Tibni died, and Omri reigned" (1 Kings xvi, 21-22). Nothing could be terser or more pregnant with meaning; nothing, unfortunately, could less satisfy our appetite for knowledge. Yet the brevity of the narrative must not blind us to its importance. This must have been one of the critical moments in the history of the Northern Kingdom. Was it perhaps the expiring struggle of Ephraim against the predominance of the tribes of Esdraelon? This is not quite so fanciful as it may sound. It is true that we know nothing of Omri's descent, yet we are not altogether without guidance. An Omri of Issachar was prince and governor of that tribe under David (1 Chron. xxvii, 18). It would not then be impossible for the later Omri to have been a relation, even perhaps a grandson, of this prince: indeed, when we sum up what we know of Ahab, his son, we shall find this not improbable. There are three places which seem to be linked together in the history of this dynasty, Samaria, En-gannim (Jenin), and Jezreel. Of these the first two explain themselves; Samaria as the new capital;

En-gannim, that bower of greenery and running water, as the King's Garden House (2 Kings ix, 27). But what of Jezreel? It can never have been a fortress, for the remains are insignificant. Moreover, Bethshan at the foot of the valley was already performing admirably the duties of sentinel. Surely the most probable explanation of Ahab's preference for Jezreel is the obvious and natural one, that it was the home of his family? If this is so, then the dynasty of Omri belonged, like Baasha's, to Issachar (Joshua xix, 18). It was, like his, a dynasty of the Great Plain; and Omri's transference of his capital to a site more accessible to Esdraelon becomes, in this light, as easily explicable as Ahab's intimate relations with the Phœnicians who bordered on Asher. The significance of this for our present purpose is considerable. The collapse of Jeroboam's line seems to have sounded the death-knell of the ancient predominance of Ephraim. From this time onwards the centre of power shifted from the mountains to the Great Plain. New kings arose whose policy must necessarily have been to depress and weaken the old tribal leader; to drive it from the great strategic and military centres which it occupied, Shechem and Tirzah; and, finally, to establish their own capital in closer touch with their own tribal kinsfolk, while they filled the land around it with tribesmen who could be counted upon for loyal sympathy. It is perhaps not too far-fetched to find a note significant of this emphatic change in the catalogues of Num. xxvi to which we have already referred; in these, Ephraim is made to show a decrease from 40,500 to 32,500. No explanation is given of a drop so startling and so utterly at variance with the old predominance of this tribe. On the other hand, of the tribes which show an increase, it is remarkable that the greatest gainers are Issachar (+ 9,900), Benjamin (+ 10,200), Asher (+11,900), and Manasseh (+ 20,500). The increase assigned to Benjamin is hard to understand, as it is, of course, wholly incompatible with the territory assigned to that tribe, but it acquires a significance of its own, when we remember that Benjamin was Ephraim's neighbour on the south, and might serve as an additional contrast to its marked decline. When we turn to the other tribes, we are bound to ask ourselves whether it can be mere coincidence that it is Asher, Issachar, and Manasseh, the three tribes in closest touch with one another from the first, of which the largest increase is recorded. Leaving aside for the moment the question why it

should be Manasseh which is represented as the greatest gainer, we may surely see in this catalogue another indication of the new predominance of the Plain.

At this point a further consideration arises. We have seen that by the ninth year of Ahab (at least) a number of Manassite clans were in possession of Mount Ephraim as far south as Tirzah and the Wadi Kanah. Where were these clans before they took over this new territory? It might seem simple enough at first glance to reply that they simply moved southwards from their old extended boundary along the fringe of Asher and Issachar; but this is by no means what the available evidence suggests. It is here that the genealogy of the tribes become important. In Joshua xvii, 1-2 we are told that Manasseh had seven "sons", Machir the "father of Gilead" being the first-born, the others being Abiezer, Helek, Asriel, Shechem, Hepher, and Shemida. In Num. xxvi, 29-34, however, another version is given. Here Machir appears as the *only* son of Manasseh. He is the "father of Gilead" and the *grandfather* of the six clans named above.[10] Of these, Hepher alone is given a further pedigree. His son Zelophehad had no sons but five daughters, Mahlah, Noah, Hoglah, Milcah, and Tirzah, whose names recur in Num. xxvii, 1; xxxvi, 11; and Joshua xvii, 3. Two other genealogies of Manasseh need not detain us. One (1 Chron. ii, 21-23) gives us Machir once more as the "father of Gilead"; the other (1 Chron. vii, 14-19) repeating this, gives us in addition Abiezer and Mahlah, but makes them grandchildren of Manasseh by another child, the wife (or concubine) of the patriarch being in this tradition an Aramitess, *i.e.*, a native of Syria. Shemida is mentioned independently as the father of Shechem. In all this there appears little that is tangible; yet there are some very curious indications which are worth noting. We may start first with the clan Abiezer, which is familiar to us as that to which Gideon belonged. In his days it must have been settled somewhere between Harod's Well (beneath Jezreel, Judges vii, 1) and Mount Tabor (Judges viii, 18), on the one hand, and Shechem (Judges ix, 1) on the other. Shechem itself was at this time still in Amorite hands, and since later it belonged to Ephraim, the Manassite "Shechem" must be regarded as a mythical

[10] Abiezer appearing as Jezer. Joshua xvii., 3 ("P") follows Num. xxvi., 29 sq., in making Hepher a descendant of Machir.

ancestor. The difference of pointing itself indicates the perplexity of the genealogist, who must have found it difficult to reconcile Manasseh's (later) occupation of the city with the notorious fact that its name was not Israelite at all. Of the other four clans, Hepher has already been mentioned. The name also occurs as that of a district combined in Solomon's days with Aruboth (Arrabeh) and Socoh (Shuweikeh) under a single revenue-collector, Ben-Hesed (1 Kings iv, 10). As at this date Mount Ephraim (another Solomonic district) extended at least as far as Mount Ebal (*see above*), it is not possible to follow Albright in placing Hepher in the neighbourhood of Tirzah. The district under Ben-Hesed must have formed a rough crescent of low land extending from Arrabeh above the plain of Dothan south-westwards and eastwards, Socoh indicating the former, and the land of Hepher the latter, direction. The fact that Tirzah and her sisters are to be found not in the land of Hepher but in the hill-country near the Ephraimite boundary is not at all incomprehensible. The whole story of these "daughters" of Zelophehad claiming an inheritance in their own right reflects the fact that they were in some sense separate from Hepher. In fact, we are expressly told that they received their lots *individually* among the brethren of their father (Joshua xvii, 4-6: "There fell *ten* parts . . . ."). All, therefore, that we are justified in suggesting, is that a Manassite clan *at one period* occupied the land of Hepher (perhaps on the verge of Esdraelon between Ibleam and Gilboa), and that in the period of the Manassite occupation of Mount Ephraim the old towns of Tirzah, Mahlah, and the rest were taken over by families claiming a descent from it.

Of the remaining three clans, Asriel is altogether unknown except for the passages quoted. Shemida and Helek have now reappeared on the ostraca of Samaria: otherwise we have no information about them beyond the Biblical references cited above. Our investigation comes then to this, that while we have some knowledge of Abiezer which seems to have preserved its old inheritance in Palestine without change, we have no knowledge at all of the original position of four of the remaining clans or of the five "granddaughters" of the fifth. In these circumstances it is surely permissible to remind ourselves of the tradition found in Num. xxvi, 29-34, and strongly suggested in the pedigree of 1 Chron. vii, 14. In the first of these, as we have seen, the whole six Manassite clans

draw their descent from Machir of *Gilead*; in the second, the *Aramitess* concubine of Manasseh preserves a similar memory of a trans-Jordanian origin. It has indeed always been a puzzle to account for the strong Gileadite flavour in the pedigree of this western half of the tribe. Is it not possible that the tradition was a true one? There is evidence (admittedly late) which speaks of the fighting renown of the Manassites of Gilead, and records a large increase of their population (1 Chron. v, 18, 23). When we remember that the Syrian wars began in Baasha's reign and were in full swing in that of Ahab, that the centre of fighting was for much of the time in Gilead, and that the kings of Israel were therefore in close touch with the very men whom they could best use to cover their capital by occupying the strategic positions of northern Mount Ephraim, it is surely not unreasonable to accept the traditional origin of four at least out of these six known clans of Western Manasseh.[11] It is not difficult then to account for the confusion of the genealogist. The original western half of the tribe must have sunk to insignificance after the great migration to Gilead. Scattered along the fringe of Esdraelon it would rapidly become merged in the tribes whose territory it bordered and indeed overlapped. One clan only, Abiezer, seems to have maintained its identity intact: the rest had disappeared from history long before the genealogist began his labours. Unfortunately for him when that moment arrived, he found himself confronted with five clans and five sub-sections of clans, all claiming to be Manassite, all dwelling west of the Jordan, and (in spite of this) asserting (for some at least) a pride of descent from the great Machir of Gilead! We have then at once an explanation of the two baffling features of this genealogy, its detailed preciseness (contrast this with the meagre genealogy of Ephraim) and its perplexing confusion. We have further—in the comparatively *recent* arrival of these clans in western Palestine— an explanation of the extraordinary approach to completeness with which their names are repeated on the ostraca of Samaria.

There is one more question that is of interest to us, namely, the date at which this genealogy (we are accepting that of Num.

[11] Hepher was certainly west of Jordan, so that it is possible that the tribesmen who took over Tirzah and her "sister" towns simply moved southwards from the fringe of Esdraelon. It should be remembered, however, that the tradition of Joshua xvii., 3, is distinctly opposed to this.

xxvi, 29-34) was compiled; for genealogy and boundary go, as we have seen, together, and it is indeed not improbable that they were recorded at the same time. The most natural date would be at some period during the long and (from the military standpoint) glorious reign of Jeroboam II. In 1 Chron. v, 17, we are actually told that certain genealogies were compiled then, and there seems no substantial objection to such a view. The long period of peace and prosperity which crowned the victories of Jeroboam II provided both an admirable and a natural opportunity for "taking stock" of the nation and recording the pedigrees and the distribution of its tribes. Necessarily this must have involved the practical issue of the demarcation of their boundaries, or, at any rate, of those which might be a later subject of controversy. If this view be correct, we are in sight of our final conclusion, a conclusion indeed which, in that event, seems to be forced upon us. The deliberate restoration of the birthright and priority to Manasseh, and the enormous increase accorded to it in Num. xxvi are suggestive of something far greater than a mere tribal encroachment, organised, it may be, by the Issachar dynasty of Ahab. We hold that these numbers are fictitious, but that they are symbolically fictitious; and the fact which they symbolise is not merely the renascence, but the predominance, of Manasseh. Let it be remembered that this leap is not so long a one as it might seem. The *renascence* of the tribe is vouched for by the existence of the Wadi Kanah boundary and the corroborative testimony of the ostraca. Its *predominance*, proclaimed so loudly by these figures, is a step, but not an unnatural step, forward. It postulates, in short, nothing but the extermination of an Issachar dynasty by one of Manassite (in all probability Gileadite) origin. Whether the House of Jehu sprang from this tribe we have no means of telling; but it is at least noteworthy, that after its collapse the line of the usurper Menahem was cut short by a conspiracy which included fifty Gileadites with an Argob (surely a Manassite) among their leaders (2 Kings xv, 25). It seems, in fact, as if by a curious turn of the wheel the servants called in to guard the capital had themselves become the over-lords. Once more, but now as the curtain begins to fall upon the long history of the northern tribes, "out of Machir the governors came down."

NOTE.—One objection that will certainly be raised to the theory propounded above is that to the pre-exilic prophets Hosea, Isaiah, and Jeremiah, the name of Ephraim is a favourite synonym for the Northern Kingdom. The weight of this objection it is very difficult to estimate. For a conservative and deeply religious man, the "*magni nominis umbra*" possesses always an immeasurable influence. The ancient pre-eminence of Ephraim, its favoured position hallowed by the hands and blessing of Jacob himself, the ineradicable impress of its name upon the whole hill-country north of Judea (*cf.* Jer. xxxi, 5-6), all these must have combined to preserve for the prophets of Israel a dear and honoured title (and that the least tainted by the abominations of a semi Canaanite Esdraelon), when all else had passed long since from the hands of the dwindling tribe. But whatever weight such considerations possess, it should be borne in mind that even if the proposed solution of the problem is rejected the problem itself remains.

TRANSLITERATION OF HEBREW AND ARABIC CONSONANTS.

HEBREW.

Hebrew.	English.		Hebrew.	English.	
א	’		כ	kh	
ב	b		ל	l	
ב	bh		מ	m	
ג	g		נ	n	
ג	gh		ס	s	
ד	d		ע	‘	
ד	dh		פ	p	
ה	h		פ	f	
ו	v, w		צ	z	
ז	z		ק	k	
ח	h		ר	r	
ט	t		שׁ	sh	
י	y		שׂ	s	
כ	k		ת	t	
			ת	th	

ARABIC.

Arabic.	English.		Arabic.	English.	
ا	’		ض	d	
ب	b		ط	t	
ت	t		ظ	tz	
ث	th		ع	‘	
ج	g	or j in Syrian Arabic.	غ	gh	
ح	h		ف	f	
خ	kh		ق	k	
د	d		ك	k	
ذ	dh		ل	l	
ر	r		م	m	
ز	z		ن	n	
س	s		ه	h	
ش	sh		و	w	
ص	z		ي	y	

Long vowels marked thus:—ā, ē, ī, ō, ū.